

## CHAPTER 64E-6 STANDARDS FOR ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

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## PART I

### 64E-6.001 General.

(1) The provisions of Part I of this rule shall apply to all areas of the state except where specific provisions found in Part II which specifically addresses the Florida Keys, or specific provisions found in Part IV which specifically address performance-based treatment systems, exempt or modify compliance with Part I or Part II requirements. Performance-based treatment systems are intended as an alternative to the systems conforming to the prescriptive standards detailed in Parts I and II of this rule and shall be used only for a single family residence. Designs for performance-based treatment systems allow for the use of alternative and innovative methods, materials, processes, and techniques that reduce the total biological, chemical, hydraulic, organic, nutrient, bacterial and viral discharge to the environment. Where used, the performance-based treatment systems shall be designed, operated, constructed, maintained and used in conformance with Section 381.0065(4)(j), F.S. Part III addresses the registration of septic tank contractors and certification of partnerships and corporations. Part V addresses fees for Parts I, II, III, and IV of this rule.

(2) Except for places of employment meeting the provisions of Chapter 64E-10, F.A.C., buildings used or intended for human occupancy, employment or service to the public and locations where people congregate shall connect toilets and other wastewater generating fixtures to an approved wastewater treatment and disposal system. Also, property or locations where people congregate, are employed, or where property is used by the public for temporary and short periods, such as construction sites, fairs, carnivals,

revivals, field locations for agricultural workers, encampments or other use shall be provided with an approved wastewater treatment and disposal system. Establishments with permanent structures shall not rely upon systems designed for temporary use as the primary means of wastewater treatment and disposal.

(3) Use of holding tanks and portable toilets shall be in accordance with the provisions of Rule 64E-6.010, F.A.C.

(4) Except as provided for in Section 381.00655, F.S., any existing and prior approved system which has been placed into use and which remains in satisfactory operating condition shall remain valid for use under the terms of the rule and permit under which it was approved. Alterations that change the conditions under which the system was permitted and approved, sewage characteristics or increase sewage flow will require that the owner, or their authorized representative, apply for and receive reapproval of the system by the DOH county health department, prior to any alteration of the structure, or system. If an applicant requests that the department consider the previous structure's or establishment's most recent approved occupancy, the applicant must provide written documentation that the onsite sewage treatment and disposal system was approved by the department for that previous occupancy. An applicant will be required to complete Form DH 4015, 10/97, Application for Onsite Sewage Treatment and Disposal System Construction Permit, herein incorporated by reference, and provide a site plan in accordance with paragraph 64E-6.004(3)(a), F.A.C., to provide information of the site conditions under which the system is currently in use and conditions under which it will be used. The applicant shall have all system tanks pumped by a permitted septage disposal service to determine tank volume based on the actual measurements of the tank. The service pumping the tank shall perform a visual inspection of the tank when the tank is empty to detect any observable defects or leaks in the tank, and shall submit the results to the DOH county health department as part of the application. If a prior approved existing system has been approved by the DOH county health department within the preceding three years, and the system was determined to be in satisfactory operating condition at that time, a new inspection is not required unless there is a record of failure of the system. If it is determined that a new inspection is not required, there will be no charge for this application, but reapproval shall be required. A commercial system out of service for more than one year shall be brought into full compliance with current requirements of this chapter prior to the system being placed into service. If the use of a building is changed or if additions or alterations to a building are made which will increase domestic sewage flow, change sewage characteristics, or compromise the integrity or function of the system, the onsite sewage treatment and disposal system serving such building shall be brought into full compliance with the provisions and requirements of these rules. Proper well setbacks shall be maintained. Prior to any modification of the system, the owner shall apply for and obtain a permit for modification of the system from the county health department in accordance with Rule 64E-6.004, F.A.C. The permit shall be valid for 18 months from the date of issue. Where building construction has commenced, it shall be valid for an additional 90 days. Necessary site investigations and tests shall be performed at the expense of the owner by either an engineer with soils training who is registered in the state of Florida pursuant to Section 471, F.S., registered septic tank contractors, master septic tank contractors, or persons certified under Section 381.0101, F.S., or department personnel for the appropriate fee specified in Section 381.0066, F.S.

(a) For residences, flows shall be calculated using new system criteria for bedrooms and building area, including existing structures and any proposed additions. Table I and footnotes shall apply. For example, a current three bedroom, 1300 square foot home would be able to add building area to have a total of 2250 square feet of building area with no change in their approved system, provided no additional bedrooms are added. No part of the existing structure, or the addition to the structure shall be allowed to cover any part of the system. Non-load bearing structures, such as a concrete patio floor, are allowed to cover the septic tank, provided that access to the tank is provided for maintenance. The structure above the septic tank shall have a minimum opening of 225 square inches at each end of the septic tank for access into the tank. The structure shall not be in direct contact with the tank. A barrier of soil or plastic shall be used between the tank and non-load bearing structure. For those residences that add sewage flow, the system shall be required to be altered to meet the following criteria:

1. The septic tank need not be replaced if it is structurally sound and is within one tank size of the required specifications found in Table II, for the proposed structure. An approved outlet filter shall be installed if one is currently not in place.

2. The county health department shall require the existing drainfield to be increased to current rule drainfield size requirements for the proposed estimated sewage flow using the appropriate soil loading rate and sizing criteria for new systems. Where the existing elevation of the bottom surface of the drainfield is less than 24 inches above the wet season high water table, the bottom of the drainfield shall be maintained at the existing separation or a minimum of 12 inches above the wet season high water table, whichever is greater.

3. Where the bottom of the drainfield is less than 12 inches above the wet season high water table, the drainfield shall be brought into full compliance with all new system standards, as long as it is the intent of the applicant to proceed with the addition to the residence.

4. Any system where the tank needs to be replaced or is replaced as part of a system upgrade shall be brought into full compliance with all new system specifications.

(b) For commercial establishments, the system shall not be required to be altered if domestic sewage flow is not expected to increase by more than 20% of original design flow or require more than one tank size adjustment. A department approved outlet filter device shall be installed. Any commercial system where the tank needs to be replaced shall be brought into full compliance with all new system specifications.

(c) These requirements do not authorize a residence or establishment to exceed the lot flow allowances authorized under paragraph 64E-6.005(7)(c), F.A.C. Establishments that currently exceed lot flow allowances shall not be allowed to increase sewage flow.

(d) Any system which is used to treat and dispose of commercial wastewater shall be brought into full compliance with the provisions and requirements of current rules when any change in sewage flow or characteristics is made.

(e) Repair of the system to repair system standards shall not alter the standards found in this subsection for existing system use or modification.

(f) The installation of a laundry system, a gray water system, a grease interceptor, or additional drainfield as a precautionary measure to prolong system functioning of an existing system is considered a modification to the system. Such installation is not a modification if it is associated with an increase in estimated sewage flow or change in sewage characteristics, if the system is in failure or if the existing system is in non-compliance with the terms of the original permit, in which case it will be considered a new system.

(g) Where the current structure exceeds the design capacity of the existing system, the system shall not be allowed for use with any addition.

(5) The department Procedure for Voluntary Inspection and Assessment of Existing Systems, May, 2000, herein incorporated by reference, shall be applied except in situations pertaining to an increase in sewage flow or change in sewage characteristics, or failure of the system. The inspection is designed to assess the condition of a system at a particular moment in time. The inspection will identify obviously substandard systems, for example systems without drainfields. The inspection is not designed to determine precise code compliance, nor provide information to demonstrate that the system will adequately serve the use to be placed upon it by this or any subsequent owner. Nothing in this section shall be construed to limit the amount of detail an inspector may provide at their professional discretion. Persons allowed to perform work under this section shall be master septic tank contractors, registered septic tank contractors, state-licensed plumbers, and persons certified under Section 381.0101, F.S. Department employees are excluded from performing these evaluations. Aerobic treatment units and performance-based treatment systems shall not be evaluated using this criteria, but shall be evaluated by the approved maintenance entity which maintains the unit or system. Nothing in this section restricts the person having ownership of, control of, or use of an onsite sewage treatment and disposal system from requesting a partial inspection. The inspector shall provide the person requesting the inspection a copy of the department Procedure for Voluntary Inspection and Assessment of Existing Systems and written notice of their right to request an inspection based on part or all of the standards.

(6) Citations issued by the department shall be on Form DH 3146, 10/97, Citation for Violation, Onsite Sewage Programs/ Sanitary Nuisance, hereby incorporated by reference.

(7) All forms incorporated herein may be obtained by contacting the department.

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, 386.041, 489.553 FS. History-New 12-22-82, Amended 2-5-85, Formerly 10D-6.41, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.041, Amended 11-19-97, 2-3-98, 3-22-00, 9-5-00.*

#### **64E-6.002 Definitions.**

For the purposes of this chapter, the following words and phrases shall have the meanings indicated:

(1) Absorption surface – the total surface area of soil at the bottom of the drainfield.

(2) Aerobic treatment unit – a sewage treatment unit which introduces air into sewage to provide aerobic biochemical stabilization within a treatment receptacle.

(3) Alternative system – any approved onsite sewage treatment and disposal system used in lieu of, including modifications to, a standard subsurface system.

(4) American National Standards Institute, hereafter referred to as ANSI – an organization comprised of trade associations, technical societies, professional groups, consumer organizations, and individual companies with headquarters located at 1430 Broadway, New York, New York 10018. This organization acts as a clearinghouse and coordinating body for voluntary standards activities in the United States, and approves as American National Standards those standards that have been developed according to its principles of openness, due process and consensus. Among its activities is accreditation of third-party certification programs.

(5) American Society for Testing Materials hereafter referred to as ASTM – a technical society with headquarters located at 1916 Race Street, Philadelphia, Pennsylvania, 19103, which develops and publishes national standards for the testing and quality assurance of construction materials.

(6) Approved – an onsite sewage treatment and disposal system constructed and installed in compliance with the standards and requirements of this chapter and which has received final installation approval. “Approved” installation does not imply that a system will perform satisfactorily for a specific period of time.

(7) Approved maintenance entity – any person or business entity which has been issued a written permit by the DOH county health department to provide maintenance services associated with approved onsite aerobic treatment units.

(8) Aquifer – a geological formation, group of formations, or part of a formation that is capable of yielding potentially usable quantities of potable water from wells or springs.

(9) Available publicly owned or investor-owned sewerage system – as defined by Section 381.0065(2), F.S.

(10) Base flood – the flood having a one percent chance of being equaled or exceeded in any given year.

(11) Bedroom – a room designed primarily for sleeping or a room which is expected to routinely provide sleeping accommodations for occupants.

(12) Building Area – that enclosed habitable area of a dwelling unit, excluding the garage, carport, exterior storage shed, or open or screened patios or decks. Calculations of building area shall be made by measurements of the outside building dimensions. Building area of each additional story of the structure shall be added to determine the total building area.

(13) Commercial Sewage Waste – Non-toxic, non-hazardous wastewater from commercial facilities. Examples of establishments included in this definition are commercial and institutional food operations, commercial laundry facilities with no more than 4 machines, and animal holding facilities.

(14) Department – the Department of Health including authorized agents of the individual DOH county health departments.

(15) Domestic sewage waste – as defined by Section 381.0065(2), F.S. Domestic sewage is further categorized as:

(a) Blackwater – as defined by Section 381.0065(2), F.S.

(b) Graywater – as defined by Section 381.0065(2), F.S.

(c) Domestic sewage waste ranges:

1. Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>), maximum 300 mg/l;

2. Total Suspended Solids (TSS), maximum 200 mg/l;

3. pH, 6 – 8; or within 1 pH unit of the water supply pH; and

4. Nitrogen (Total Kjeldahl Nitrogen, TKN) maximum 100 mg/l.

(16) Dosing Tank – See Pump Tank.

(17) Drainage Ditch – a trench dug for the purpose of draining water from the land or for transporting water for use on the land. Swales are excluded from this definition.

(18) Drainfield – a system of open-jointed or perforated piping, approved alternative distribution units, or other treatment facilities designed to distribute effluent for filtration, oxidation and absorption by the soil within the zone of aeration.

(19) Dwelling unit – a residence for the housing of a single family whether such residence is a detached structure or a unit of a multiple family building.

(20) Effective capacity – the liquid volume of a tank contained below the liquid level line.

(21) Effective soil depth – the depth of slightly or moderately limited soil material at an onsite sewage treatment and disposal system drainfield site.

(22) Establishment – a multi-family housing, apartment, condominium or townhouse complex, a mobile home park or recreational vehicle park, a non-residential commercial or institutional development or places of business or assembly. An establishment includes all buildings or structures, and the land appertaining thereto and shall have an owners association or other legal entity which is responsible for maintenance and operation of the development's sewage treatment and disposal facilities.

(23) Failure – a condition existing within an onsite sewage treatment and disposal system which prohibits the system from functioning in a sanitary manner and which results in the discharge of untreated or partially treated wastewater onto ground surface, into surface water, into ground water, or which results in the failure of building plumbing to discharge properly.

(24) Filled System – a drainfield system where a portion, but not all, of the drainfield sidewalls are located at an elevation above the elevations of undisturbed native soil on the site (see Figure 1).

## **SEE FLORIDA ADMINISTRATIVE CODE FOR “FIGURE 1”**

(25) Flooding – a covering of soil surface by water from any source, such as streams overflowing their banks, runoff from adjacent or surrounding slopes, elevation of the ground water table exceeding that of the soil surface, or combinations of these. Terms also associated with flooding and used elsewhere in this chapter are:

(a) Frequent – flooding which occurs more than once every two years on the average;

(b) Ten year flood elevation – that flood elevation which has a 10 in 100 probability of being equaled or exceeded in any calendar year.

(26) Florida Keys – as defined by Section 381.0065(2), F.S.

(27) Food Establishment Sludge – oils, fats, greases, food scraps and other grease interceptor contents generated by a food operation or institutional food preparation facility using an onsite sewage treatment and disposal system.

(28) Impermeable – when used in reference to Section 381.0065(2)(k), F.S., shall mean a condition where the maximum hydraulic conductivity is less than or equal to  $1 \times 10^{-7}$  centimeters per second.

(29) Industrial, hazardous or toxic sewage waste – wastewater not otherwise defined as domestic sewage waste or commercial sewage waste. Wastewater carried off by floor drains, utility sinks and equipment drains located in buildings in industrial or manufacturing areas, estimated volumes of commercial sewage wastes exceeding 5000 gallons per day, wastewater from commercial laundry facilities with more than 4 self-service machines, and wastewater from car and truck washes are included in this definition.

(30) Innovative system – as defined by Section 381.0065(2), F.S.

(31) Limitation ratings – Soil classification ratings which describe the relative suitability of soils to properly assimilate sewage effluent. The three rating categories for the purpose of this rule are:

- (a) Slightly limited – soil materials with favorable properties for the use of a drainfield.
- (b) Moderately limited – soil materials that have properties moderately favorable for the use of a drainfield.
- (c) Severely limited – soil materials which have one or more properties unsuitable for the use of a drainfield.

(32) Lot – as defined by Section 381.0065(2), F.S.

(33) Mean annual flood line – as defined by Section 381.0065(2), F.S.

(34) Mean annual flood line indicators– as used in Section 381.0065(2), F.S. means:

(a) Water stains – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Water marks”;

(b) Hydric adventitious roots – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Morphological plant adaptations”;

(c) Drift lines – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Drift lines and rafted debris”;

(d) Rafted debris – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Drift lines and rafted debris”;

(e) Aquatic mosses and liverworts – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Aquatic mosses and liverworts”;

(f) Moss collars – a proliferation of terrestrial mosses and liverworts that mark the upper limits of the mean annual flood line;

(g) Lichen lines – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Elevated lichen lines.”

(35) Mean high water – the average height of tidal high waters over a 19-year period.

(36) Mean high water line – the intersection of the tidal plane of mean high water with the shore.

(37) Mound system – a drainfield constructed at a prescribed elevation in a prepared area of fill material. All drainfields where any part of the bottom surface of the drainfield is located at or above the elevation of undisturbed native soil in the drainfield area is a mound system (see Figure 2).

## **SEE FLORIDA ADMINISTRATIVE CODE FOR “FIGURE 2”**

(38) National Sanitation Foundation International, hereafter referred to as NSF – a not for profit research, education and service organization located at 3475 Plymouth Road, Ann Arbor, Michigan, 48106, that develops standards and criteria for equipment, products and services that bear upon health.

(39) Non-potable water well – a well intended exclusively for irrigation purposes, or for supplying water to a heat pump system or a well for receiving discharge water from a heat pump system.

(40) “O” Horizon – the layer of organic matter on the surface of a mineral soil. This soil layer consists of decaying plant residues.

(41) Obstructed land – those areas on a lot or property used for such purposes as pools, concrete slabs, buildings, driveways, parking and similar areas which prohibit, hinder, or affect the installation, operation or maintenance of an onsite sewage treatment and disposal system.

(42) Onsite sewage treatment and disposal system, also referred to as system – as defined by Section 381.0065(2), F.S. Appurtenances installed within the building sewer prior to a treatment receptacle shall not be included in this definition. Systems covered by Chapter 403, F.S., are not included in this definition.

(43) Potable water line – as defined by Section 381.0065(2), F.S.

(44) Potable water well – a source of water used for drinking, culinary or domestic purposes. The following classifications of potable wells are used in this chapter.

(a) Private potable well – a well used only by one or two residences, one which may be a rental residence.

(b) Public drinking water well – a well serving any drinking water system other than a private water system. Public systems are classified in the following manner:

1. Community public water system – as defined in Section 403.852, F.S., such water system serves a year-round residential population of at least 25 people per day or has a minimum of 15 year-round residential service connections.

2. Non-community public water system – as defined in Section 403.852, F.S., such water system serves a transient population of at least 25 people per day at least 60 days per year or has a minimum of 15 non-residential service connections.

3. Non-transient non-community public water system – as defined in Section 403.852, F.S., such water system is not a community water system, but is a system that regularly serves at least 25 of the same people for over 6 months of the year.

4. Limited use public water system – a public water system not regulated by the Florida Safe Drinking Water Act or Chapter 62-550, 62-555, or 62-560 of the F.A.C., and further specified as limited use commercial public water system which provides piped potable water to one or more non-residential establishments and limited use community public water system which provides piped potable water to five or more private residences or two or more rental residences.

(c) Multi-family water well – a well that is used by three or four residences, one of which may be a rental residence.

(45) Pump tank – a tank, or dedicated section of a multi-compartment tank used to locate a pump that is used to distribute effluent to a drainfield, or other part of an onsite sewage treatment and disposal system.

(46) Regulatory floodway – means the channel of a river or other water course and adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

(47) Repair – replacement of or modifications or additions to a failing system which are necessary to allow the system to function in accordance with its design or must be made to eliminate a public health or pollution hazard. Servicing or replacing with like kind mechanical or electrical parts of an approved onsite sewage treatment and disposal system; or making minor structural corrections to a tank, or distribution box, does not constitute a repair. The use of any treatment method that is intended to improve the functioning of any part of the system, or to prolong or sustain the length of time the system functions, shall be considered a repair. The use of any non-prohibited additive by the system owner, through the building plumbing, shall not be considered a repair. Removal of the contents of any tank or the installation of an approved outlet filter device, where the drainfield is not disturbed, shall not be considered a repair. Replacement of a broken lid to any tank shall not be considered a repair.

(48) Septage – as defined by Section 381.0065(2), F.S. Excluded from this definition are the contents of portable toilets, holding tanks, and grease interceptors.

(49) Septic tank – a watertight receptacle constructed to promote separation of solid and liquid components of wastewater, to provide limited digestion of organic matter, to store solids, and to allow clarified liquid to discharge for further treatment and disposal into a drainfield.

(50) Spoil material – any part of the existing drainfield, any adjacent soil material within 24 inches vertically and 12 inches horizontally of the drainfield, and any soil that has visible signs of effluent that has been removed as part of a repair, modification or abandonment of an onsite sewage treatment and disposal system.

(51) Standard subsurface drainfield system – an onsite sewage treatment and disposal system drainfield consisting of a distribution box or header pipe and a drain trench or absorption bed with all portions of the drainfield sidewalls installed below the elevation of undisturbed native soil (see Figure 3).

## **SEE FLORIDA ADMINISTRATIVE CODE FOR “FIGURE 3”**

(52) Subdivision – as defined by Section 381.0065(2), F.S.

(53) Surface water bodies – are classified as.

(a) Permanent nontidal surface water body – as defined by Section 381.0065(2), F.S.

(b) Tidally influenced surface water body-as defined by Section 381.0065(2), F.S.

(54) Swale – a manmade, vegetatively-stabilized trench which contains contiguous areas of standing or flowing water for less than 72 hours following a rainfall event. A swale has a top width-to-depth ratio of the cross- equal to or greater than 6:1, or side slopes equal to or greater than 3 feet horizontal to 1 foot vertical.

(55) Temporary – a single period or an accumulation of periods not exceeding 120 total days in any 365-day period.

(56) Toxic or hazardous chemical – as defined by Section 381.0065(2), F.S.

(57) Undisturbed native soil – soil which has been deposited onto a site by the actions of nature and which has not been disturbed or altered by the activities of man.

(58) Water table elevation – the upper surface of the groundwater or that level below which the soil or underlying rock material is wholly saturated with water. Water table elevation is measured from the soil surface downward to the upper level of saturated soil or up to the free water level.

(59) Wettest season – that period of time each year in which the ground water table elevation can normally be expected to be at its highest elevation.

*Specific Authority 381.0011(4), (13), 381.006, 381.0065(3)(a) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.006(7), 381.0061, 381.0065, 381.00655 FS. History–New 12-22-82, Amended 2-5-85, Formerly 10D-6.42, Amended 3-17-92, 1-3-95, Formerly 10D-6.042, Amended 11-19-97, 3-22-00.*

### **64E-6.003 Permits.**

(1) System Construction Permit – No portion of an onsite sewage treatment and disposal system shall be installed, repaired, altered, modified, abandoned or replaced until an “Onsite Sewage Treatment and Disposal System Construction Permit” has been issued on Form DH 4016. If building construction has commenced, the system construction permit shall be valid for an additional 90 days beyond the eighteen month expiration date. A fee shall not be charged for a repair permit issued within 12 months from the date of final authorization of the onsite sewage treatment and disposal system. If a construction or repair permit for an onsite sewage treatment and disposal system is transferred to another person the date of the construction or repair permit shall not be amended, but shall run from the date of original issuance prior to the transfer. Servicing or replacing with like kind mechanical or electrical parts of an approved onsite sewage treatment and disposal system; pumping of septage from a system; or making minor structural corrections to a tank, or distribution box, does not constitute a repair. The installation of a laundry system, a gray water

system, a grease interceptor, or additional drainfield, as a precautionary measure to prolong system functioning, is considered a repair provided that system modification is not associated with an increase in estimated sewage flow or change in sewage characteristics, in which case it will be considered a new system.

(2) System Inspection – Before covering with earth and before placing a system into service, a person installing or constructing any portion of an onsite sewage treatment and disposal system shall notify the county health department of the completion of the construction activities and shall have the system inspected by the department for compliance with the requirements of this chapter, except as noted in subsection 64E-6.003(3), F.A.C., for repair installations.

(a) If the system construction is approved after an inspection by the DOH county health department, the department shall issue a “Construction Approval” notice to the installer.

(b) If the system installation does not pass the construction inspection on any type of system installation, the installer shall make all required corrections and notify the DOH county health department of the completion of the work prior to reinspection of the system. A reinspection fee shall be charged to the installer for each additional inspection leading up to construction approval.

(c) Final installation approval shall not be granted until the DOH county health department has confirmed that all requirements of this chapter, including building construction and lot grading are in compliance with plans and specifications submitted with the permit application.

1. In addition, if the system was designed by an engineer, who shall be registered in the State of Florida, the DOH county health department shall require the design engineer or the design engineer’s designee, who shall be a registered engineer, to certify that the installed system complies with the approved design and installation requirements. Single family residences are excluded from this requirement, however, all changes to the engineering specifications shall be approved by the design engineer.

2. If additional site visits after the construction approval inspection are necessary to establish the compliance of the building construction and lot grading, or to establish the compliance with any provision of this chapter, a reinspection fee shall be charged to the permit applicant for each inspection of the building and site leading to the final installation approval.

(d) Where an establishment is serviced by onsite sewage treatment and disposal system, Section 381.0065(4), F.S., shall govern when occupancy of a building can be allowed. “Approved” installation does not imply that a system will perform satisfactorily for a specific period of time.

(e) Systems which are required to have an annual operating permit and the structures which they serve shall be inspected by the department at least once during the term of the permit to determine compliance with the terms of the operating permit.

(3) Repair Inspections – A system repair shall be inspected by the department or a master septic tank contractor to determine compliance with construction permit standards prior to final covering of the system. Inspections shall comply with subsection 64E-6.043(2), F.A.C., and the following:

(a) A master septic tank contractor may, at their option, cover a system repair when the following conditions are met:

1. The master septic tank contractor has requested an inspection from the department during the normal duty day before the date and time the repair will be ready for inspection. Inspections must be scheduled during normal inspection hours and in conjunction with the inspection schedule of the county health department having jurisdiction.

2. At the date and time specified for inspection, the department is not on site to conduct an inspection within 30 minutes of the scheduled time. If the department is on site to conduct the inspection and the system is not ready for inspection within 30 minutes after the scheduled time, a reinspection shall be requested. A reinspection fee shall be charged. Contractors shall cancel or reschedule inspections not later than two hours prior to the scheduled time. In such cases, no reinspection fee shall be charged.

3. The master septic tank contractor is physically on site and conducts the inspection.

(b) The master septic tank contractor shall document the inspection on Form DOH 4016, 10/96, System Repair Certification, and fax or hand deliver the form to the department by the next normal duty day following the inspection.

(c) A master septic tank contractor shall not cover a system repair when the department has performed an inspection and has notified the contractor of violations. Any system that has been inspected by the department and found to be in violation of construction standards of this rule, must receive a reinspection from the department before the system may be covered. A reinspection fee shall be charged for each reinspection leading to final approval.

(d) The department shall issue a “final approval” of the system repair based on the master septic tank contractor’s inspection.

(e) Nothing herein prevents the department from inspecting a system inspected by a master septic tank contractor. No inspection is final until approved by the department.

(4) Voiding a permit – After an onsite sewage treatment and disposal system has received final installation approval from the department, if the building is modified in such a way that a larger system would be required, if any portion of the required drainfield unobstructed area is covered by impervious material, if the property is subdivided into a smaller lot or lots whereby the permitted system would not have been originally approved, if a well is installed on the property which violates the setbacks to the approved system, or if the system is improperly modified or damaged, the department shall undertake administrative action to revoke the permit. The department shall prohibit the further or continued use of a system when the permit has become void by injunction or other procedure authorized by law.

(5) Operating permits – No business shall occupy a building served by an onsite sewage treatment and disposal system if the building is located in an area zoned or used for industrial or manufacturing purposes or its equivalent; where a business will generate commercial sewage waste; or where an aerobic treatment unit or performance-based treatment system is used, until an

“Application for Onsite Sewage Treatment and Disposal System Operating Permit” has been received and approved by the department. Form DH 4081, 10/96 “Application for Onsite Sewage Treatment and Disposal System Operating Permit,” is hereby incorporated by reference.

(a) Property owners or their authorized agents are required to obtain an annual operating permit for systems located in an area zoned or used for industrial or manufacturing purposes or its equivalent or where a business will generate commercial sewage waste. The permit shall designate the person or entity responsible for the operation and maintenance of the system; the type of activity proposed on the site; persons or businesses which will use the system; equipment and types and quantities of chemical compounds which will be used by the building occupants which are likely to be discharged into the onsite sewage treatment and disposal system. At a minimum, the owner or person responsible for maintenance of the system shall test, or cause to be tested, the onsite sewage treatment and disposal system effluent in a qualitative and quantitative manner for any chemical compounds associated with the particular industrial or manufacturing operations conducted in that establishment, as directed by the county public health unit. The frequency of testing shall be specified on the annual operating permit.

(b) Operating permits are not transferable. If the owner of the system remains the same but the tenancy of the building changes, a survey form which is an attachment to Form DH 4081, 10/96 must be completed and submitted to the DOH county health department for review. Changes in building occupancy shall be reviewed per Section 381.0065(4), F.S.

(c) Maintenance entities contracting to service aerobic treatment systems and performance-based treatment systems shall obtain a biennial operating permit from the DOH county health department for the system. Persons operating an aerobic treatment unit or performance-based treatment system shall permit department personnel right of entry to the property during normal working hours to allow for effluent sampling or evaluating the general state of repair or function of the system. Persons required to obtain an annual operating permit for an onsite sewage treatment and disposal system in an industrial or manufacturing zone or its equivalent, shall not also be required to obtain an annual operating permit for an aerobic treatment unit at that site. Performance-based treatment systems that also include an aerobic treatment unit require only one biennial operating or performance-based treatment system permit for the system.

(6) All forms incorporated herein may be obtained by contacting the department.

*Specific Authority 154.06, 381.0011, 381.006, 381.0065, 489.553, 489.557 FS. Law Implemented 154.01, 381.001, 381.0011, 381.0012, 381.0025, 381.006, 381.0061, 381.0065, 381.00655, 381.0066, 381.0067, 386.041 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.43, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.043, Amended 3-22-00, 4-21-02.*

#### **64E-6.004 Application for System Construction Permit.**

(1) No person shall cause or allow construction of a system without first applying for and obtaining a construction permit. Form DH 4015 shall be used for recording permit application information.

(2) An application shall be completed in full, signed by the owner or the owner’s authorized representative, or a contractor licensed in accordance with Chapter 489, F.S., and shall be accompanied by all required exhibits and fees. If the owner of a property uses an authorized representative to obtain a new system construction permit, a signed statement from the owner of the property assigning authority for the representative to act on the owner’s behalf shall accompany the application. This statement shall include specific information allowing the representative to act on the owner’s behalf in all aspects of an application for an onsite sewage treatment and disposal system.

(3) The suitability of a lot, property, subdivision or building for the use of an onsite sewage treatment and disposal system shall be determined from an evaluation of lot size, anticipated sewage flow into the proposed system, the anticipated sewage waste strength, soil and water table conditions, soil drainage and site topography and other related criteria. Necessary site investigations and tests shall be performed at the expense of the owner by either an engineer with soils training who is registered in the State of Florida pursuant to Chapter 471, F.S., by department personnel, registered septic tank contractors, master septic tank contractors, and persons certified under Section 381.0101, F.S. Registered septic tank contractors shall perform site evaluations for system repairs only. When determining that the necessary site investigations and tests be performed by, or under the responsible supervision, direction and control of an engineer registered in the State of Florida, the county health department must consider the criteria listed in subsection 64E-6.004(4), F.A.C. Results of site investigations shall be entered on, or attached to, the construction permit application form for consideration by the county health department. The application shall also include the following data:

(a) A plan or plat of the lot or total site ownership drawn to scale showing boundaries with dimensions, locations of any existing or proposed residences or buildings, swimming pools, recorded easements, the onsite sewage treatment and disposal system components and their location on the property, the slope of the property and any existing or proposed wells, potable and non-potable water lines, including valves, drainage features, filled areas, obstructed areas, and surface water bodies. The site plan shall be for the property where the system is to be installed. If the county health department is responsible for performing the site evaluation, the applicant or applicant’s authorized representative shall indicate the approximate location of wells, onsite sewage treatment and disposal systems, surface water bodies and other pertinent facilities or features on contiguous or adjacent property. If the features are within 75 feet of the applicant lot, the estimated distance to the feature must be shown but need not be drawn to scale. If the county health department will not be performing the site evaluation, the applicant or authorized agent shall be responsible for the measurements to all features, including the pertinent features within 75 feet of the applicant lot. The location of any public drinking water well, as defined in paragraph 64E-6.002(44)(b), F.A.C., within 200 feet of the applicant’s lot shall also be



shown, with the distance indicated from the system to the well. If an individual lot is five acres or greater, the applicant may draw a minimum one acre parcel to scale showing all required features, or the minimum size drawing necessary to properly exhibit all required features, whichever is larger. The applicant must also show the location of that one acre or larger parcel inside the total site ownership. All information that is necessary to determine the total sewage flow and proper setbacks on the site ownership shall be submitted with the application. The applicant lot shall be clearly identified. A copy of the legal description or survey must accompany the application for confirmation of property dimensions only.

(b) For residences, a floor plan drawn to scale or showing the total building area of the structure, at the applicants' option, and showing the number of bedrooms and the building area of each dwelling unit. Non-residential establishments shall submit a floor plan drawn to scale showing the square footage of the establishment, all plumbing drains and fixture types, and any other features necessary to determine the composition and quantity of wastewater to be generated. Plumbing fixtures located at a non-residential establishment shall be included on the floor plan, but need not be drawn to scale.

(c) At least two soil profile descriptions within the proposed system soil absorption area to a minimum depth of 6 feet or to refusal, for which the minimum information provided is the upper and lower horizon boundaries, Munsell color of the horizon and its components and USDA soil texture; using USDA Soil Classification methodology as described in Chapter 3 of the Soil Survey Manual, United States Department of Agriculture, Handbook No. 18, October 1993, herein incorporated by reference. At a minimum, a soil profile shall be provided at the beginning and end of the proposed drainfield site. Where the replacement of severely limited soil is proposed, soil profiles shall be performed to a minimum depth of 6 feet or to the depth of the slightly or moderately limited soil layer lying below the replaced layer, whichever is greater.

(d) Water table elevations which exist at the time of the site evaluation and estimated water table elevation during the wettest season of the year. Water table elevations shall be established from a benchmark or other fixed point of reference located on the property or within reasonable proximity to it. The existing property elevation at the site of each soil profile must also be recorded relative to the benchmark or fixed point of reference.

(e) Subdivisions platted and recorded or unrecorded prior to January 1, 1972, will be considered on the basis of an evaluation of soil characteristics, water table elevations, history of flooding and records of service of existing installations in the same general area.

(4) The DOH county health department may require for review and approval, the submission of detailed system construction plans prepared by an engineer who is registered in the State of Florida. In determining whether the detailed system construction plans may be required, the department will consider the size of the system, the amount and type of sewage generated by the establishment, the degree of deviation from a standard subsurface drainfield system, any alternative system treatment requirements, and any unusual or varying soil conditions. For establishments with proposed domestic sewage flow rates more than 2500 gallons per day, or commercial sewage flow rates more than 1000 gallons per day, the DOH county health department shall require for review and approval, the submission of detailed system construction plans prepared by an engineer who is registered in the State of Florida. All plans and forms submitted by a registered engineer shall be dated, signed and sealed. Except as provided for in subsection 64E-6.003(2), F.A.C., the DOH county health department shall require the design engineer to certify that the installed system complies with the approved design and installation requirements.

(5) The applicant shall be the permit holder and shall be held responsible for all information supplied to the department. The signed application, site evaluation, and system design plans when required, serve as the basis by which the department determines the issuance of a construction permit. In the event of a change in any information given in the application which served as basis for issuing a construction permit, the permit holder will immediately file an amended application detailing such changed conditions. If the new conditions are determined to be in compliance with the standards in this chapter, the construction permit shall be amended. If the new conditions are determined to be in non-compliance with the standards of this chapter, the permit shall be revoked subject to the provisions of Chapter 120, F.S. A system construction permit application shall be valid for one year. If a permit has not been issued to the applicant within one year from the date of application, then the department shall review the construction permit application for accuracy at no charge prior to issuance of a permit. The applicant shall supply a statement that the information contained in the application has not changed, or shall amend the application. If a site visit is necessary as part of the review, then a re-evaluation fee shall be charged. If the rules under which the application was accepted have changed, and an onsite sewage treatment and disposal system construction permit has not been issued, a new permit application shall be required.

(6) Requests for variance shall be made on Form DH 4057.

(7) Where a property owner proposes to build or has built multiple residences or multiple businesses on a single lot, and the entire area of the lot is required to accommodate the designed sewage flow from the multiple residences or multiple businesses to the onsite sewage treatment and disposal system, the property owner must submit, prior to issuance of a construction permit, a written utility easement which has been executed and recorded in the public property records at the county courthouse. The utility easement must bind the property together so that the original lot size is retained for purposes of compliance with all the requirements of Chapter 64E-6, F.A.C., and must include provisions for maintaining the onsite sewage treatment and disposal system. For example, a duplex built on a single lot with a single onsite sewage treatment and disposal system serving both halves of the duplex must have a written utility easement executed and recorded in the public property records before an onsite sewage treatment and disposal system construction permit is issued. In order to obtain a repair permit, the property owner must submit a copy of the recorded utility easement demonstrating the retention of the original lot size for purposes of the onsite sewage treatment and disposal system and a method for maintaining the system. For example, each half of a duplex built on a single lot with a single

onsite sewage treatment and disposal system serving both halves of the duplex is sold to separate persons. If, when the onsite sewage treatment disposal system fails, and a written utility easement was not executed and recorded in the public property records before the sales, it must be done before an onsite sewage treatment and disposal system repair permit is issued.

(a) Where a property owner proposes to build or has built a single residence or a single business or multiple residences or businesses on multiple lots, and the residence's or business's authorized sewage flow requires the use of multiple lots, or parts thereof, for the onsite sewage treatment and disposal system, the property owner must submit, prior to issuance of a permit, a written utility easement executed and recorded in the public property records at the county courthouse. The utility easement must bind the required property together so that the original lots and their collective size, or part thereof, is retained for purposes of the onsite sewage treatment and disposal system, and must include provisions for maintaining the onsite sewage treatment and disposal system. For example, a residence or business built on three lots with a sewage flow which is large enough to require the land from all three lots must have a written utility easement executed and recorded in the public property records before an onsite sewage treatment and disposal system construction permit may be issued. In order to obtain a repair permit, the property owner must submit a copy of the recorded utility easement demonstrating the retention of the original lots and their collective size for purposes of the onsite sewage treatment and disposal system and a method for maintaining the system.

(b) Where a property owner, through inadvertent error or mistake, has built multiple residences or multiple businesses on a series of lots and each residence or business has its own onsite sewage treatment and disposal system or the sewage flow from the residence or business exceeds the allowable limits established for the area of land upon which the residence or business is located, the property owner must execute and record in the public property records, a written utility easement, for the remaining undeveloped lots in the subdivision, which informs the public of the amount of sewage flow which will be generated or the number of onsite sewage treatment and disposal systems which will be installed in that subdivision. It must also state that when the maximum amount of sewage flow or maximum number of onsite sewage treatment and disposal systems has been reached for the subdivision, no further development can occur until sewer is available.

(8) Innovative Systems or new product approval for onsite sewage treatment and disposal systems shall be initiated by submittal of an application for permit using Form DH 3143, Jan. 94, hereby incorporated by reference. DOH county health departments are authorized to issue installation permits upon receipt of the temporary permit. Form DH 3144, Jan 94, and Form DH 3145, Jan 94, hereby incorporated by reference, shall be used to record information that describes notification requirements between the temporary permit applicant, the DOH county health department, and the State Health Office. These forms are to be processed by the DOH county health departments.

*Specific Authority 381.0011(4), (13), 381.006, 381.0065(3)(a), 489.553 FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.00655, 381.0067, 386.041, 489.553 FS. History--New 12-22-82, Amended 2-5-85, Formerly 10D-6.44, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.044, Amended 11-19-97, 3-22-00.*

#### **64E-6.005 Location and Installation.**

All systems shall be located and installed so that with proper maintenance the systems function in a sanitary manner, do not create sanitary nuisances or health hazards and do not endanger the safety of any domestic water supply, groundwater or surface water. Sewage waste and effluent from onsite sewage treatment and disposal systems shall not be discharged onto the ground surface or directly or indirectly discharged into ditches, drainage structures, groundwaters, surface waters, or aquifers. To prevent such discharge or health hazards:

(1) Systems and seepage stabilization facilities established after the effective date of the rule shall be placed no closer than the minimum distances indicated for the following:

(a) Seventy-five feet from a private potable well as defined in paragraph 64E-6.002(44)(a), F.A.C., or a multi-family water well as defined in paragraph 64E-6.002(44)(c), F.A.C.

(b) One-hundred feet from a public drinking water well as defined in paragraph 64E-6.002(44)(b), F.A.C., if such a well serves a facility with an estimated sewage flow of 2000 gallons or less per day.

(c) Two-hundred feet from a public drinking water well as defined in paragraph 64E-6.002(44)(b), F.A.C., if such a well serves a facility with an estimated sewage flow of more than 2000 gallons per day.

(d) Fifty feet from a non-potable water well as defined in subsection 64E-6.002(39), F.A.C.

(e) Ten feet from any storm sewer pipe, to the maximum extent possible, but in no instance shall the setback be less than 5 feet.

(f) Fifteen feet from the design high-water line of retention areas, detention areas, or swales designed to contain standing or flowing water for less than 72 hours after a rainfall or the design high-water level of normally dry drainage ditches or normally dry individual-lot stormwater retention areas.

(2) Systems shall not be located under buildings or within 5 feet of building foundations, including pilings for elevated structures, or within 5 feet of mobile home walls, swimming pool walls, or within 5 feet of property lines except where property lines about utility easements which do not contain underground utilities, or where recorded easements are specifically provided for the installation of systems for service to more than one lot or property owner.

(a) Sidewalks, decks and patios shall not be subject to the 5 foot setback, however, drainfields shall not be installed beneath such structures. Any tank located beneath a driveway shall have traffic lids as specified in paragraph 64E-6.013(1)(h), F.A.C. Concrete structures which are intended to be placed over a septic tank shall have a barrier of soil or plastic material placed between the structure and the tank so as to preclude adhesion of the structure to the tank.

(b) Systems shall not be located within 10 feet of potable water lines unless such lines are sealed with a water proof sealant within a sleeve of similar material pipe to a distance of at least 10 feet from the nearest portion of the drainfield. In no case shall the sleeved water line be located within 24 inches of the onsite sewage treatment and disposal system. The sleeved water line shall not be located at an elevation lower than the drainfield absorption surface. Non-potable water lines shall not be located within 24 inches of the system without backflow preventers or check valves being installed on the water line so as to preclude contamination of the water system.

(c) Systems shall be setback a minimum of 15 feet from groundwater interceptor drains.

(3) Except for the provisions of Section 381.0065(4)(g)1. and 2., F.S., systems and septage stabilization facilities shall not be located laterally within 75 feet of the boundaries of surface water bodies. Systems and septage stabilization facilities shall be located a minimum of 15 feet from the design high water line of a swale, retention or detention area designed to contain standing or flowing water for less than 72 hours after a rainfall, or the design high water level of normally dry drainage ditches or normally dry individual lot storm water retention areas.

(4) Suitable, unobstructed land shall be available for the installation and proper functioning of the system. At least 75 percent of the unobstructed area must meet minimum setback requirements of subsections (1) and (3) above to allow for drainfield repair or system expansion. The minimum unobstructed area shall:

(a) Be at least 2 times as large as the drainfield absorption area required by rule. For example, if a 200 square feet drainfield is required, the total unobstructed area required, inclusive of the 200 square feet drainfield area, would be 400 square feet. Unobstructed soil area between drain trenches shall be included in the unobstructed area calculation.

(b) Be contiguous to the drainfield.

(c) Be in addition to the setbacks required in subsection (2) above.

(5) Onsite sewage treatment and disposal systems if installed in fill material, the fill shall be required to settle for a period of at least 6 months, or has been compacted to a density comparable to the surrounding natural soil. The fill material shall be of a suitable, slightly limited soil material.

(6) To prevent soil smear and excessive soil compaction, drainfields shall not be installed in soils with textures finer than sand, loamy sand, or sandy loam when the soil moisture content is above the point at which the soil changes from semi-solid to plastic.

(7) Onsite sewage treatment and disposal systems shall be installed where a sewerage system is not available and when conditions in Section 381.0065(4)(a)-(g), F.S., are met. Onsite graywater tank and drainfield systems may, at the homeowners' discretion, be utilized provided blackwater is disposed into a sanitary sewerage system when such sewerage system is available. Graywater systems may, at the homeowners' discretion, be utilized in conjunction with an onsite blackwater system where a sewerage system is not available for blackwater disposal.

(a) The minimum area of each lot under Section 381.0065(4)(a), F.S., shall consist of at least 1/2 acre (21,780 square feet) exclusive of all paved areas and prepared road beds within public rights-of-way or easements and exclusive of surface water bodies.

(b) The determination of lot densities under Section 381.0065(4)(b), F.S., shall be made on the basis of the net acreage of the subdivision which shall exclude from the gross acreage all paved areas and prepared road beds within public or private rights-of-way or easements and shall also exclude surface water bodies.

(c) Maximum daily sewage flow allowances specified in Sections 381.0065(4)(a), (b) and (g), F.S., shall be calculated on an individual lot by lot basis. The acreage or fraction of an acre of each lot or parcel of land shall be determined and this value shall be multiplied by 2500 gallons per acre per day if a public drinking water well serving a public system as defined in subparagraphs 64E-6.002(44)(b)1., 2., or 3., F.A.C., is utilized, or be multiplied by 1500 gallons per acre per day if a public drinking water well serving a public water system as defined in subparagraph 64E-6.002(44)(b)4., F.A.C., or a private potable well is utilized. Contiguous unpaved and non-compacted road rights-of-way, and easements with no subsurface obstructions that would affect the operation of drainfield systems, shall be included in total lot size calculations. Where an unobstructed easement is contiguous to two or more lots, each lot shall receive its pro rata share of the area contained in the easement. Surface water bodies shall not be included in total lot size calculations. subsection 64E-6.008(1), F.A.C., Table I, shall be used for determining estimated average daily sewage flows.

(d) Platted residential lots shall be subject to the requirements set forth in subsections 381.0065(4)(g)1. and 2., F.S.

(e) When portions of a lot or lots which were platted prior to January 1, 1972 are combined in such a manner that will decrease the total density of the subdivision, pre-1972 lot provisions shall apply. However, the maximum setback possible to surface water bodies shall be maintained with a minimum setback of 50 feet.

(8) Notwithstanding the requirements of this section, where an effluent transmission line consists of schedule 40 PVC or consists of schedule 20 PVC enclosed in a sleeve of schedule 40 PVC, the transmission line shall be set back from private potable wells, irrigation wells or surface water bodies by the maximum distance attainable but not less than 25 feet when installed.

(9) Onsite sewage treatment and disposal systems for estimated establishment domestic sewage flows exceeding 5000 gallons per day but not exceeding 10,000 gallons per day shall be located and installed under the following conditions.

(a) The average estimated daily sewage flow from the establishment shall be divided by the net land area associated with the establishment. The resulting number shall not exceed 2500 gallons per acre per day for establishments which use a water supply as defined in subparagraphs 64E-6.002(44)(b)1., 2. and 3, F.A.C.

(b) No more than 5000 gallons of wastewater shall be discharged into any single onsite sewage treatment and disposal system serving the establishment.

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 489.553, 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, 386.041, 489.553 FS. History--New 12-22-82, Amended 2-5-85, Formerly 10D-6.46, Amended 3-17-92, 1-3-95, Formerly 10D-6.046, Amended 11-19-97, 2-3-98, 3-22-00.*

#### **64E-6.006 Site Evaluation Criteria.**

Onsite sewage treatment and disposal systems may be utilized where lot sizes are in compliance with requirements of subsection 64E-6.005(7), F.A.C., and all of the following criteria are met:

(1) The effective soil depth throughout the drainfield installation site extends 42 inches or more below the bottom surface of the drainfield. Paragraphs (a), (b) and (c) list soil texture classes with their respective limitation ratings.

(a) Coarse sand not associated with an estimated wet season high water table within 48 inches below the absorption surface, sand, fine sand, loamy coarse sand, coarse sandy loam, loamy sand, and sandy loam are considered to be slightly limited soil materials.

(b) Very fine sand, loamy fine sand, loamy very fine sand, silt loam, silt, loam, fine sandy loam, very fine sandy loam, sandy clay loam, clay loam, silty clay loam, sandy clay and silty clay soil are considered to be moderately limited soil materials and are subject to evaluation with other influencing factors and local conditions.

(c) Clay, bedrock, oolitic limestone, fractured rock, hardpan, organic soil, gravel and coarse sand, when coarse sand is associated with an estimated wet season high water table within 48 inches of the absorption surface are severely limited soil materials. If severely limited soil material can be replaced with slightly limited soil material, see Footnotes 3 and 4 of Table III for minimum requirements. Where limestone is found to be discontinuous along the horizontal plane and is dispersed among slightly or moderately limited soils, the Department Policy for Drainfield Sizing in Areas With Discontinuous Limestone, August 1999, herein incorporated by reference, shall be used. The referenced policy may be obtained by contacting the department.

(2) The water table elevation at the wettest season of the year is at least 24 inches below the bottom surface of the drainfield. In addition, systems shall not be located where the undrained, naturally occurring wet season water table elevation in the area of the proposed system installation is determined to be at or above the elevation of the existing ground surface. However, when sufficient slightly limited fill material is permitted to be placed on the property to construct a properly designed onsite sewage treatment and disposal system, the department shall authorize construction based on the final lot elevation. This provision does not authorize a property owner to fill or modify the site without first obtaining necessary permits for site preparation work from other agencies of government having jurisdiction. The following information shall be used in determining the wet season water table elevation:

(a) U.S. Department of Agriculture Soil Conservation Service soils maps and soil interpretation records.

(b) Evaluation of soil color and the presence or absence of mottling.

(c) Evaluation of impermeable or semi-permeable soil layers.

(d) Evaluation of onsite vegetation.

(e) An onsite evaluation of the property which has used the above referenced sources of information and which has considered the season of the year when the evaluation was performed, historic weather patterns, and recent rainfall events.

(3) Setbacks in subsections 64E-6.005(1), (2), (3) and (4), F.A.C., are met.

(4) The site of the installation and the additional required unobstructed land referred to in subsection 64E-6.005(4), F.A.C., shall not be covered with asphalt or concrete, or be subject to vehicular traffic or other activity as defined in subsection 64E-6.002(41), F.A.C., which would adversely affect the soil, or the operation of the system.

(5) The site of the installation and the additional required unobstructed land referred to in subsection 64E-6.005(4), F.A.C., is not subject to saturation from sources such as artificial drainage of ground surfaces, driveways, roads or roof drains.

(6) The existing lot elevation at the site of the proposed system installation and any contiguous land referred to in subsection 64E-6.005(4), F.A.C., shall not be subject to frequent flooding. Except for areas affected by Section 381.0065(4)(t), F.S., fill material, if permitted, shall be placed in the area for the system and contiguous unobstructed area to raise the lot elevation above the 2 year flood.

*Specific Authority 154.06, 381.0011, 381.006, 381.0065, 489.553, 489.557 FS. Law Implemented 154.01, 381.001, 381.0011, 381.0012, 381.0025, 381.006, 381.0061, 381.0065, 381.00655, 381.0066, 381.0067, 386.041 FS. History--New 12-22-82, Amended 2-5-85, Formerly 10D-6.47, Amended 3-17-92, 4-16-92, 1-3-95, Formerly 10D-6.047, Amended 3-22-00.*

#### **64E-6.008 System Size Determinations.**

(1) Minimum design flows for systems serving any structure, building or group of buildings shall be based on the estimated daily sewage flow as determined from Table I or the following:

(a) The DOH county health department shall accept, for other than residences and food operations, metered water use data in lieu of the estimated sewage flows set forth in Table I. For metered flow consideration, the applicant shall provide authenticated monthly water use data documenting water consumption for the most recent 12 month period for at least six similar establishments. Similar establishments are those like size operations engaged in the same type of business or service, which are located in the same type of geographic environment, and which have approximately the same operating hours. Metered flow values will not be considered to be a reliable indicator of typical water use where one or more of the establishments utilized in the sample has exceeded the monthly flow average for all six establishments by more than 25 percent or where the different establishments demonstrate wide variations in monthly flow totals. When metered flow data is accepted in lieu of estimated flows found in Table I, the highest flow which occurred in any month for any of the six similar establishments shall be used for system sizing purposes. Except for food operations which exceed domestic sewage waste quality parameters as defined in subsection 64E-6.002(15), F.A.C., where an existing establishment which has been in continuous operation for the previous 24 months seeks to utilize its own metered flows, the applicant shall provide authenticated monthly water use data documenting water consumption for the most recent 24 month period. The highest monthly metered flow value for an existing establishment shall be used for system sizing purposes.

(b) When onsite systems use multiple strategies to reduce the total estimated sewage flow or the drainfield size, only one reduction method shall be credited.

TABLE I  
For System Design  
ESTIMATED SEWAGE FLOWS

TYPE OF GALLONS ESTABLISHMENT PER DAY COMMERCIAL:	
Airports, bus terminals, train stations, port & dock facilities, Bathroom waste only	
(a) Per passenger	4
(b) Add per employee per 8 hour shift	15
Barber & beauty shops per service chair	75
Bowling alley bathroom waste only per lane	50
Country club	
(a) Per resident	100
(b) Add per member or patron	25
(c) Add per employee per 8 hour shift	15
Doctor and Dentist offices	
(a) Per practitioner	250
(b) Add per employee per 8 hour shift	15
Factories, exclusive of industrial wastes gallons per employee per 8 hour shift	
(a) No showers provided	15
(b) Showers provided	25
Flea Market open 3 or less days per week	
(a) Per non-food service vendor space	15
(b) Add per food service establishment using single service articles only per	50
100 Square feet of floor space	
(c) Per limited food service establishment	25
(d) For flea markets open more than 3 days per week estimated flows shall be doubled Food operations	
(a) Restaurant operating 16 hours or less per day per seat	40
(b) Restaurant operating more than 16 hours per day per seat	60
(c) Restaurant using single service articles only and operating 16 hours or less per day per seat	20
(d) Restaurant using single service articles only and operating more than 16 hours per day per seat	35
(e) Bar and cocktail lounge per seat	20

add per pool table or video game	15
(f) Drive-in restaurant per car space	50
(g) Carry out only, including caterers	
1. Per 100 square feet of floor space	50
2. Add per employee per 8 hour shift	15
(h) Institutions per meal	5
(i) Food Outlets excluding deli's, bakery, or meat department per 100 square feet of floor space	10
1. Add for deli per 100 square feet of deli floor space	40
2. Add for bakery per 100 square feet of bakery floor space	40
3. Add for meat department per 100 square feet of meat department floor space	75
4. Add per water closet	200
Hotels & motels	
(a) Regular per room	00
(b) Resort hotels, camps, cottages per room	200
(c) Add for establishments with self service laundry facilities per machine	750
Mobile Home Park	
(a) Per single wide mobile home space, less than 4 single wide spaces connected to a shared onsite system	250
(b) Per single wide mobile home space, 4 or more single wide spaces are connected to a shared onsite system	225
(c) Per double wide mobile home space, less than 4 double wide mobile home spaces connected to a shared onsite system	300
(d) Per double wide mobile home space, 4 or more double wide mobile home spaces connected to a shared onsite system	
Office building	15
per employee per 8 hour shift or per 100 square feet of floor space, whichever is greater	15
Transient Recreational Vehicle Park	
(a) Recreational vehicle space for overnight stay, without water and sewer hookup per vehicle space	50
(b) Recreational vehicle space for overnight stay, with water and sewer hookup per vehicle space	75
Service stations per water closet	
(a) Open 16 hours per day or less	250
(b) Open more than 16 hours per day	325
Shopping centers without food or laundry per square foot of floor space	0.1
Stadiums, race tracks, ball parks per seat	4
Stores per bathroom	100
Swimming and bathing facilities, public per person	10
Theatres and Auditoriums, per seat	4
Veterinary Clinic	
(a) Per practitioner	250
(b) Add per employee per 8 hour shift	15
(c) Add per kennel, stall or cage	20
Warehouse	
(a) Add per employee per 8 hour shift	15
(b) Add per loading bay	100

(c) Self-storage, per unit (up to 200 units)	1
<b>INSTITUTIONAL:</b>	
Churches per seat which includes kitchen wastewater flows unless meals prepared on a routine basis	3
If meals served on a regular basis add per meal prepared	5
Hospitals per bed which does not include kitchen wastewater flows add per meal prepared	200
Nursing, rest homes, adult congregate living facilities per bed which does not include kitchen wastewater flows add per meal prepared	5
Parks, public picnic	100
(a) With toilets only per person	4
(b) With bathhouse, showers & toilets per person	10
Public institutions other than schools and hospitals per person which does not include kitchen wastewater flows add per meal prepared	100
Schools per student	5
(a) Day-type	10
(b) Add for showers	4
(c) Add for cafeteria	4
(d) Add for day school workers	15
(e) Boarding-type	75
Work/construction camps, semi-permanent per worker	50
<b>RESIDENTIAL:</b>	
<b>Residences</b>	
(a) Single or multiple family per dwelling unit	
1 Bedroom with 750 sq. ft. or less of building area	100
2 Bedrooms with 751-1200 sq. ft. of building area	200
3 Bedrooms with 1201-2250 sq. ft. of building area	300
4 Bedrooms with 2251-3300 sq. ft. of building area	400
For each additional bedroom or each additional 750 square feet of building area or fraction thereof in a dwelling unit, system sizing shall be increased by 100 gallons per dwelling unit.	
(b) Other per occupant	50

**Footnotes to Table I:**

1. For food operations, kitchen wastewater flows shall normally be calculated as 66 percent of the total establishment wastewater flow.

2. Systems serving high volume establishments, such as restaurants, convenience stores and service stations located near interstate type highways and similar high-traffic areas, require special sizing consideration due to expected above average sewage volume. Minimum estimated flows for these facilities shall be 3.0 times the volumes determined from the Table I figures.

3. For residences, the volume of wastewater shall be calculated as 50 percent blackwater and 50 percent graywater.

4. Where the number of bedrooms indicated on the floor plan and the corresponding building area of a dwelling unit in Table I do not coincide, the criteria which will result in the greatest estimated sewage flow shall apply.

5. Convenience store estimated sewage flows shall be determined by adding flows for food outlets and service stations as appropriate to the products and services offered.

6. Estimated flows for residential systems assumes a maximum occupancy of two persons per bedroom. Where residential care facilities will house more than two persons in any bedroom, estimated flows shall be increased by 50 gallons per each additional occupant.

(2) Minimum effective septic tank capacity shall be determined from Table II. However, where multiple family dwelling units are jointly connected to a septic tank system, minimum effective septic tank capacities specified in the table shall be increased 75 gallons for each dwelling unit connected to the system. With the exception noted in paragraph 64E-6.013(2)(a), F.A.C., all septic

tanks shall be multiple chambered or shall be placed in series to achieve the required effective capacity. The use of an approved outlet filter device shall be required. Outlet filters shall be installed within or following the last septic tank or septic tank compartment before distribution to the drainfield. The outlet filter device requirement includes blackwater tanks, but does not include graywater tanks or grease interceptors or laundry tanks. Outlet filter devices shall be placed to allow accessibility for routine maintenance. Utilization and sizing of outlet filter devices shall be in accordance with the manufacturers' recommendations. The approved outlet filter device shall be installed in accordance with the manufacturers' recommendations. The Bureau of Onsite Sewage Programs shall approve outlet filter devices per the department's Policy on Approval Standards For Onsite Sewage Treatment And Disposal Systems Outlet Filter Devices, August 1999, which is herein incorporated by reference.

TABLE II  
SEPTIC TANK AND PUMP TANK CAPACITY

AVERAGE SEWAGE FLOW GALLONS/DAY	SEPTIC TANK	PUMP TANK	
	MINIMUM EFFECTIVE CAPACITY GALLONS	MINIMUM EFFECTIVE CAPACITY GALLONS	
		Residential	Commercial
0-200	900	150	225
201-300	900	225	375
301-400	1050	300	450
401-500	1200	375	600
501-600	1350	450	600
601-700	1500	525	750
701-800	1650	600	900
801-1000	1900	750	1050
1001-1250	2200	900	1200
1251-1750	2700	1350	1900
1751-2500	3200	1650	2700
2501-3000	3700	1900	3000
3001-3500	4300	2200	3000
3501-4000	4800	2700	3000
4001-4500	5300	2700	3000
4501-5000	5800	3000	3000

(3) Where a separate graywater tank and drainfield system is used, the minimum effective capacity of the graywater tank shall be 250 gallons with such system receiving not more than 75 gallons of flow per day. For graywater systems receiving flows greater than 75 gallons per day, minimum effective tank capacity shall be based on the average daily sewage flow plus 200 gallons for sludge storage. Design requirements for graywater tanks are described in subsection 64E-6.013(2), F.A.C. Where separate graywater and blackwater systems are utilized, the size of the blackwater system can be reduced, but in no case shall the blackwater system be reduced by more than 25 percent. However, the minimum capacity for septic tanks disposing of blackwater shall be 900 gallons.

(4) Where building codes allow separation of discharge pipes of the residence to separate stubouts and where lot sizes and setbacks allow system construction, the applicant may request a separate laundry waste tank and drainfield system. Where an aerobic treatment unit is used, all blackwater, graywater and laundry waste flows shall be consolidated and treated by the aerobic treatment unit. Where a residential laundry waste tank and drainfield system is used:

(a) The minimum laundry waste trench drainfield absorption area for slightly limited soil shall be 75 square feet for a one or two bedroom residence with an additional 25 square feet for each additional bedroom. If an absorption bed drainfield is used the minimum drainfield area shall be 100 square feet with an additional 50 square feet for each additional bedroom over two bedrooms. The DOH county health department shall require additional drainfield area based on moderately limited soils and other site specific conditions, which shall not exceed twice the required amount of drainfield for a slightly limited soil.

(b) The laundry waste interceptor shall meet requirements of subsections 64E-6.013(2) and (9), F.A.C.

(c) The drainfield absorption area serving the remaining wastewater fixtures in the residence shall be reduced by 25 percent.

(5) The minimum absorption area for standard subsurface drainfield systems, graywater drainfield systems, and filled systems shall be based on estimated sewage flows and Table III so long as estimated sewage flows are 200 gallons per day or higher. When estimated sewage flows are less than 200 gallons per day, system size shall be based on a minimum of 200 gallons per day.



TABLE III  
For Sizing of Drainfields Other Than Mounds

U.S. DEPARTMENT OF AGRICULTURE SOIL TEXTURAL CLASSIFICATION	SOIL TEXTURE LIMITATION (PERCOLATION RATE)	MAXIMUM SEWAGE LOADING RATE TO TRENCH & BED ABSORPTION SURFACE IN GALLONS PER SQUARE FOOT PER DAY	
		TRENCH	BED
Sand; Coarse Sand not associated with a seasonal water table of less than 48 inches; and Loamy Coarse Sand	Slightly limited (Less than 2 min/inch)	1.20	0.80
Loamy Sand; Sandy Loam; Coarse Sandy Loam; Fine Sand	Slightly limited (2-4 min/inch)	0.90	0.70
Loam; Fine Sandy Loam; Silt Loam; Very Fine Sand; Very Fine Sandy Loam; Loamy Fine Sand; Loamy Very Fine Sand; Sandy Clay Loam	Moderately limited (5-10 min/inch)	0.65	0.35
Clay Loam; Silty Clay Loam; Sandy Clay; Silty Clay; Silt	Moderately limited (Greater than 15 min/inch but not exceeding 30 min/inch)	0.35	0.20
Clay; Organic Soils; Hardpan; Bedrock	Severely limited (Greater than 30 min/inch)	Unsatisfactory for standard subsurface system	
Coarse Sand with an estimated wet season high water table within 48 inches of the bottom of the proposed drainfield; Gravel or Fractured Rock or Oolitic Limestone	Severely limited (Less than 1 min/inch and a water table less than 4 feet below the drainfield)	Unsatisfactory for standard subsurface system	

Footnotes to Table III:

1. U.S. Department of Agriculture major soil textural classification groupings and methods of field identification are explained in Rule 64E-6.016, F.A.C. Laboratory sieve analysis of soil samples may be necessary to confirm field evaluation of specific soil textural classifications. The USDA Soil Conservation Service "Soil Textural Triangle" shall be used to classify soil groupings based on the proportion of sand, silt and clay size particles.

2. The permeability or percolation rate of a soil within a specific textural classification may be affected by such factors as soil structure, cementation and mineralogy. Where a percolation rate is determined using the falling head percolation test procedure described in the United States Environmental Protection Agency Design Manual for Onsite Wastewater Treatment and Disposal Systems, October, 1980, incorporated by reference into this rule, the calculated percolation test rate shall be used with Table III and evaluated by the DOH county health department with other factors such as history of performance of systems in the area in determining the minimum sizing for the drainfield area.

3. When all other site conditions are favorable, horizons or strata of moderately or severely limited soil may be replaced with slightly limited soil or soil of the same texture as the satisfactory slightly limited permeable layer lying below the replaced layer. The slightly limited permeable layer below the replaced layer shall be identified within the soil profile which was submitted as part

of the permit application. The resulting soil profile must show complete removal of the moderately or severely limited soil layer being replaced and must be satisfactory to a minimum depth of 54 inches beneath the bottom surface of the proposed drainfield. The width of the replacement area shall be at least 2 feet wider and longer than the drain trench and for absorption beds shall include an area at least 2 feet wider and longer than the proposed bed. Drainfields shall be centered in the replaced area. Where at least 33 percent of the moderately limited soils at depths greater than 54 inches below the bottom of the drainfield have been removed to the depth of slightly limited soil, drainfield sizing shall be based on the following sewage loading rates. Where severely limited soils are being removed at depths greater than 54 inches below the bottom of the drainfield, 100 percent of the severely limited soils at depths greater than 54 inches shall be removed down to the depth of an underlying slightly limited soil. Maximum sewage loading rates for standard subsurface systems installed in replacement areas shall be 0.90 gallons per square foot per day for trench systems and 0.70 gallons per square foot per day for absorption beds in slightly limited soil textures. Where moderately limited soil materials are found beneath the proposed drainfield, and where system sizing is based on that moderately limited soil, soil replacements of less than 33% may be permitted.

4. Where coarse sand, gravel, or oolitic limestone directly underlies the drainfield area, the site shall be approved provided a minimum depth of 42 inches of the rapidly percolating soil beneath the bottom absorption surface of the drainfield and a minimum 12 inches of rapidly percolating soil contiguous to the drainfield sidewall absorption surfaces, is replaced with slightly limited soil material. Where such replacement method is utilized, the drainfield size shall be determined using a maximum sewage application rate of 0.80 gallons per square foot per day of drainfield in trenches and 0.70 gallon per square foot per day for drainfield absorption beds.

5. Where more than one soil texture classification is encountered within a soil profile and it is not removed as part of a replacement, drainfield sizing for standard subsurface drainfield systems and fill drainfield systems shall be based on the most restrictive soil texture encountered within 24 inches of the bottom of the drainfield absorption surface.

(6) All materials incorporated herein may be obtained by contacting the department.

*Specific Authority 381.0011(4), (13), 381.006, 381.0065(3)(a), 489.553 FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.0061, 381.0065, 381.0067, 386.041, 489.553 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.48, Amended 3-17-92, 1-3-95, Formerly 10D-6.048, Amended 11-19-97, 3-22-00, 9-5-00.*

#### **64E-6.009 Alternative Systems.**

When approved by the DOH county health department, alternative systems may, at the discretion of the applicant, be utilized in circumstances where standard subsurface systems are not suitable or where alternative systems are more feasible. Unless otherwise noted, all rules pertaining to siting, construction, and maintenance of standard subsurface systems shall apply to alternative systems. In addition, the DOH county health department may, using the criteria in subsection 64E-6.004(4), F.A.C., require the submission of plans prepared by an engineer registered in the State of Florida, prior to considering the use of any alternative system. The DOH county health department shall require an engineer registered in the state of Florida to design a system having a total absorption area greater than 1000 square feet and shall require the design engineer to certify that the installed system complies with the approved design and installation requirements.

(1) Waterless, incinerating or organic waste composting toilets – may be approved for use if found in compliance with standards for Wastewater Recycle/Reuse and Water Conservation Systems as defined by ANSI/NSF International Standard Number 41, revised May 1983, hereby incorporated by reference, and provided that graywater and any other liquid and solid waste is properly collected and disposed of in accordance with standards established in this chapter. For residences, the required drainfield absorption surface and unobstructed area of the system treating the remaining sewage flow shall be reduced by 25% when waterless, incinerating or organic waste composting toilets are used exclusively for all toilet wastes. Solids removed from waterless, incinerating or organic waste composting toilets shall be mixed with lime, containerized, and disposed of with the solid waste from the establishment. Liquids discharging from waterless, incinerating or organic waste composting toilets shall be plumbed into the onsite system serving the establishment.

(2) Sanitary pit privy – shall not be permitted except at remote locations where electrical service is unavailable. In no case shall such installations be permitted for permanent residences.

(3) Mound systems – are used to overcome certain limiting site conditions such as an elevated seasonal high water table, shallow permeable soil overlying slowly permeable soil and shallow permeable soil located over creviced or porous bedrock. Special installation instructions or design techniques to suit a particular site shall, using the criteria in subsection 64E-6.004(4), F.A.C., be specified on the construction permit in addition to the following general requirements.

(a) Site preparation must render the site in compliance with requirements of subsections 64E-6.006(1)-(6), F.A.C.

(b) Prior to the construction of a mound system, the applicant may fill all or a portion of a lot utilizing slightly limited soil.

(c) The O horizon of original topsoil and vegetation must be removed from beneath the drainfield, shoulder and slope area and the exposed underlying soil plowed or roughened to prevent formation of an impervious barrier between the fill and natural soil. Moderately limited soil material may be used in the construction of mound systems, but shall only be used in the construction of mound slopes and the soil cap. If moderately or severely limited soil is to be replaced beneath the mound, Rule 64E-6.008, F.A.C., Table III, footnote 3. shall be followed.

(d) Where the soil material underlying a mound system is of a similar slightly limited textural material as that used in system construction, the mound drainfield size shall be based on estimated sewage flows as specified in Rule 64E-6.008, F.A.C., Table I and upon the quality of fill material utilized in the mound system. When estimated sewage flows are calculated to be less than 200 gallons per day, specifications for system design shall be based on a minimum flow of 200 gallons per day. Maximum sewage loading rates for soils used in mound construction shall be in compliance with the following:

Fill Material	Maximum Sewage Loading Rate to Mound Drain Trench Bottom Surface in gallons per square foot per day	Maximum Sewage Loading Rate to Mound Absorption Bed Bottom Surface in gallons per square foot per day
Sand; Coarse Sand; Loamy Coarse Sand	1.00	0.75
Fine Sand	0.80	0.65
Sandy Loam; Coarse Sandy Loam; Loamy Sand	0.65	0.40

(e) Where moderately limited soils underlie the mound within 36 inches of the bottom of the drainfield, drainfield sizing shall be based on the most restrictive soil texture existing in the profile to a depth of 36 inches below the bottom of the drainfield, using Table III for soil loading rates.

(f) There shall be a minimum 4 feet separation between the shoulder of the fill and the nearest trench or absorption bed sidewall. Where a portion of the mound slope will be placed adjacent to building foundations, pilings or supports for elevated structures, mobile home walls, swimming pool walls, retaining walls, or similar obstructions there shall be a minimum 5 foot separation between the sidewall of the absorption area and the obstruction. Such obstructions shall impact the slope on no more than 50 percent of the shoulder perimeter. Retaining walls must be designed by a professional engineer registered in the state of Florida to withstand the lateral earth forces under saturated conditions and to prevent seepage. Where mounds are placed on slopes exceeding 2 percent, the toe of the slope on the downslope side of the mound shall extend an additional 4 inches for each additional 1 percent of slope. To taper the maximum elevation of the mound down to the toe of the slope, additional moderately or slightly limited fill shall be placed at a minimum 2 foot horizontal to 1 foot vertical grade where mound height does not exceed 36 inches. Mound heights which exceed 36 inches shall have a slope not steeper than 3 foot horizontal to 1 foot vertical. The entire mound including slopes, shoulders and the soil cap shall be stabilized with vegetation. Slopes steeper than 5:1 shall be sodded. Soil caps and unsodded slopes must, at a minimum, be seeded with grass and a layer of hay or similar cover. Where fill material is present in the amount so as to provide a level surface from the top of the required cover over the system over the area where the slopes would normally be located, no slopes shall be required. For example, if the neighboring lot has been permanently filled to the same level as the applicant's lot, a five-foot separation from the property line to the system will be required, as opposed to requiring the slope area. Stabilization of a mound shall be the responsibility of the septic tank contractor who constructed the mound system unless the written agreement for system construction clearly states the system owner is responsible. Mound slopes which do not conform to permit requirements shall at a minimum be restored to permit specifications prior to stabilizing. Other vegetative covers providing protection from mound erosion equal to or better than sod shall be approved by the State Health Office. Final installation approval shall not be granted until sodding or seeding and haying or other approved stabilization of the mound has occurred. No portion of the drainfield or shoulder area shall be covered with asphalt or a concrete driveway or be subject to vehicular traffic. Landscaping features such as boulders or trees which obstruct drainfield or fill shoulder area shall not be used.

(g) There shall be a soil cap of slightly or moderately limited soil material over the drainfield and shoulder area. The soil cap shall be no less than 6 inches thick at the outer perimeter of the shoulder. Additional soil cap material shall be placed over the mound and graded to provide drainage off and away from the mound. The maximum depth from the bottom of the drainfield to the finished ground surface shall not exceed 30 inches after natural settling.

(h) The site shall be landscaped according to permit specifications and shall be protected from automotive traffic or other activity that could damage the system. Swales or other surface drainage structures shall be utilized to prevent water shed from mounds draining onto neighboring property.

(i) All fill material used in the construction of systems shall be free of extraneous non-soil materials such as grass, roots and any other debris. Shell fragments less than 2.0 mm in diameter are excluded from the classification of extraneous non-soil materials and are considered to be soil particles. Severely limited soil material shall not be used in system construction. Fill material consisting of mechanically crushed and sieved rock shall not be used in system construction.

(4) Filled systems – filled systems shall be constructed in accordance with the minimum requirements for mounds, except as provided for in footnote 5., Table III, and that sewage loading rates to trench or absorption bed bottom areas shall be based on values found in Table III.

(5) Drip irrigation systems – Drip irrigation systems may, at the option of the applicant, be used in lieu of a mineral aggregate drainfield. Drip irrigation systems shall meet all requirements of this chapter except as noted below.

(a) Drip irrigation systems receiving effluent from an approved aerobic treatment unit shall meet the following requirements:

1. Drip irrigation systems shall be designed by an engineer registered in the state of Florida.

2. The infiltrative area required shall be the same as the area required for a mineral aggregate drainfield with reductions allowed for the reduction of CBOD<sub>5</sub> and TSS as noted in this chapter for aerobic treatment units.

3. In an absorption bed configuration, the drainfield area shall be calculated as extending one foot beyond the sides of the outermost emitter lines.

4. In a trench containing a single emitter line, the drainfield area shall be calculated as 2 feet multiplied by the emitter spacing in feet multiplied by the number of emitters.

5. Drip effluent disposal systems shall be considered pressure distribution systems. Head loss calculations shall be provided to insure proper hydraulic pressure at the emitter. Pump selection shall be indicated in the design specifications. Pump performance curves shall be included in the permit application.

6. Recirculation rates shall be in the design specifications.

7. Check valves, petcocks, inline filters, and vacuum breaking device locations shall be shown on the design drawings.

8. Drip irrigation systems shall be time-dosed over the 24-hour period. Demand control dosing shall override timed-dosing in periods of flow where timed dosing cannot accommodate the excessive flow.

9. Emitter lines shall be designed as a continuous loop circuit with no dead-ends.

10. Emitter lines shall be drawn to scale and emitter spacing shall be indicated on the drawings.

11. Vacuum release valves shall be installed at the highpoint of the emitter lines.

12. The maximum emitter longitudinal spacing on an emitter line shall be 2 feet. The maximum spacing between adjacent emitter lines in an absorption bed configuration shall be 2 feet. The 24-inch separation from the seasonal high water table shall be measured from the emitter orifice. Setbacks shall be measured from the drip emitter lines.

13. The setback from drip emitter lines to building foundations and property lines shall be no less than two feet.

14. The definition of a filled system in Rule 64E-6.002, F.A.C., is not applicable to drip effluent disposal systems. A drip effluent disposal system is considered to be a mound system when any part of the bottom surface of any drip emitter line is located at or above the elevation of undisturbed native soil in the drainfield area. A drip effluent disposal system is considered a standard subsurface drainfield system when the entire bottom surface of every drip emitter line is installed below the elevation of undisturbed native soil in the drainfield area.

15. For mound systems there shall be a minimum 18-inch separation between the shoulder of the fill and the nearest drip emitter line. Mound system slopes shall be in accordance with paragraph 64E-6.009(3)(f), F.A.C. Mound systems shall be stabilized in accordance with paragraph 64E-6.009(3)(f), F.A.C.

16. For standard subsurface systems, the elevation of any fill covering the drainfield shall extend no less than 18 inches away from all emitter lines before tapering down to natural grade.

17. Minimum cover on the emitter lines shall be 6 inches for all drip irrigation systems. The maximum cover for all drip irrigation systems shall be no greater than 12 inches.

18. The system shall include a petcock on the dosing pump discharge line for effluent sampling.

19. All systems shall incorporate an automatic mechanism for backwashing or flushing the drip lines and filters.

20. All onsite sewage treatment and disposal systems that include a drip effluent disposal system and aerobic treatment unit shall have an annual operating permit, maintenance contract with an approved aerobic treatment system maintenance entity, and shall be inspected in accordance with the requirements of this chapter.

21. Drip irrigation systems shall be designed to have a minimum operating pressure at the emitter head of 10 PSI, a maximum operating pressure at the emitter head of 45 PSI, a maximum system operating pressure of 60 PSI, and a maximum discharge rate per emitter of 1.5 gallons per hour.

22. Drip irrigations shall be used for treating domestic wastewater only.

23. Drip irrigation systems shall only use components approved by the Bureau of Onsite Sewage Programs.

(b) Drip irrigation systems receiving waste from other treatment devices shall be regulated under Part IV of this chapter.

(6) Tire chip aggregate systems – tire chip aggregate may be used as a substitute for mineral aggregate in onsite sewage treatment and disposal system drainfields under the following conditions:

(a) The tire chip meets the specifications for mineral aggregate found in this chapter: Mixed tire and mineral aggregate shall be approved where each type of aggregate meets its' respective standard and the combined mixture meets the gradation requirements in paragraph 64E-6.014(5)(c), F.A.C.

(b) Exposed wire protrudes no more than one-half (1/2) inch from 90% of the chips.

(c) At least 80% of the bead wire has been removed from the tires to be chipped.

(d) The system receives domestic wastewater only.

(e) Tire chip aggregate shall not be used where the seasonal high water table is less than 12 inches below the bottom of the drainfield at the wettest season of the year.

(f) In all other respects tire chip aggregates and mixed tire-mineral aggregates shall be installed with identical site restrictions and construction requirements as approved mineral aggregates.

(7) Alternative system component and design approval – After innovative system testing is completed, requests for approval of system components and designs which are not specifically addressed in this chapter shall be submitted to the department's Bureau of Onsite Sewage Programs.

(a) Requests for alternative system component material and design approval shall include:

1. Detailed system design and construction plans by an engineer registered in the State of Florida;
2. Certification of the performance capabilities of the product submitted by an engineer registered in the State of Florida;
3. Research supporting the proposed system materials;
4. Empirical data showing results of innovative system testing in the State of Florida; and
5. A design, installation and maintenance manual showing how to design and install the system in accordance with this chapter for standard, filled, mounded, gravity-fed, dosed, bed and trench configurations.

(b) In addition to those items listed in paragraph 64E-6.009(7)(a), F.A.C., manufacturers of drip effluent disposal system distribution lines, emitters, and components shall apply for and obtain approval from the Bureau of Onsite Sewage Programs for specific model numbers or part numbers prior to inclusion of the components on any site specific permit application. Manufacturer's of drip effluent disposal system components shall provide design and installation manuals for engineering and construction guidance. Design manuals shall include tables that detail flow rates vs. pressure and pressure loss per length(s) of distribution pipe.

(c) The detailed plans and information submitted with the approval request shall be reviewed by the department onsite sewage program to determine whether or not there is a reasonable certainty of the effectiveness and reliability of the proposed alternative system component. If the department is not satisfied that the information provided provides reasonable evidence of the effectiveness and reliability of the alternative system component and designs, the department shall deny the approval. Department approval of any alternative system component does not guarantee or imply that any individual system installation will perform satisfactorily for a specific period of time. Upon department approval of the material and design, the manufacturer shall list the department approval date in the installation and design manual. Proposals to amend the approved installation and design manual shall be submitted to the bureau for approval. The date of amendment approval shall be included in the manual.

(d) Except as provided for in Part IV of this rule, alternative drainfield materials and designs shall not be approved which would result in a reduction in drainfield size using the mineral aggregate drainfield system as described in Rule 64E-6.014, F.A.C., and the total surface area of soil at the bottom of the drainfield as the criteria for drainfield sizing comparisons. Alternative system component and design approvals shall not be granted for the following items:

1. Those which, in whole or in part, are used to achieve a more advanced level of treatment than the baseline treatment level specified in part IV of this chapter;

2. Aerobic treatment units;
3. Septic tank designs, filters, seals, and sealants;
4. Additives;
5. Header and drainfield pipe, including their layout; and
6. Water table separation and setback requirements.

(8) Other alternative systems – systems such as low pressure distribution networks, small diameter gravity sewers, low pressure sewer systems, alternating absorption fields, and sand filters designed and submitted by an engineer who is registered in the State of Florida, meeting the general requirements of this chapter, shall be approved by the DOH county health department where evidence exists that use of such systems will not create sanitary nuisance conditions, health hazards or pollute receiving waters. Use of an alternative system may require the establishment of procedures for routine maintenance, operational surveillance, and environmental monitoring to assure the system continues to function properly.

(9) Use of a system to serve more than one residence or commercial building under separate ownership and when located on separate lots shall require the establishment of a local sewer district, maintenance franchise, or other legally binding arrangement for the operation and maintenance of such system.

(10) All material incorporated herein may be obtained by contacting the department.

*Specific Authority 381.0011(4), (13), 381.006, 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, 386.041, 489.553 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.49, Amended 3-17-92, 1-3-95, Formerly 10D-6.049, Amended 11-19-97, 2-3-98, 3-22-00, 4-21-02, 6-18-03.*

#### **64E-6.010 Septage, Grease, Holding Tanks and Portable Toilets.**

(1) No septic tank, grease interceptor, privy, or other receptacle associated with an onsite sewage treatment and disposal system shall be cleaned or have its contents removed until the service person has obtained an annual written permit (Form DH 4013, 01/92, Operating Permit, herein incorporated by reference) from the DOH county health department in the county in which the service company is located. Permits issued under this section authorize the disposal service to handle liquid waste associated with food operations, domestic waste, or domestic septage. Such authorization applies to all septage produced in the State of Florida, and food establishment sludge which is collected for disposal from onsite sewage treatment and disposal systems.

(2) Application for a service permit shall be made to the DOH county health department on Form DH 4012, 01/92, "Application for Septage Disposal Service Permit, Temporary System Service Permit, Septage Treatment and Disposal Facility, Septic Tank Manufacturing Approval" herein incorporated by reference, which may be obtained by contacting the department. The following must be provided for the evaluation prior to issuance of a service permit:

(a) Evidence that the applicant possesses adequate equipment such as a tank truck with a liquid capacity of at least 1500 gallons, except portable toilet servicing vehicles, pumps, off truck stabilization tanks and pH testing equipment where lime stabilization and land application are proposed, as well as other appurtenances and tools necessary to perform the work intended. Equipment may be placed into service only after it has been inspected and approved by the DOH county health department. Tanks used for the stabilization and storage of septage and food service sludges shall be constructed, sized, and operated in accordance with the following provisions:

1. Stabilization tanks and septage storage tanks shall be constructed of concrete, fiberglass, corrosion-resistant steel, or other equally durable material. Tanks shall be watertight and shall be water tested for leaks prior to placing into service. The tank shall have a liquid capacity of at least 3000 gallons.

2. Construction of concrete tanks shall be at a minimum equal to that required of concrete septic tanks in Rule 64E-6.013, F.A.C. Fiberglass tanks and tanks of similar materials shall be constructed in accordance with standards found in Rule 64E-6.013, F.A.C.

3. Stabilization tanks shall contain aeration or mixing devices which will ensure thorough agitation or mixing of lime with the waste as specified in Chapter 6, EPA 625/1-79-011, Process Design Manual for Septage Treatment and Disposal, herein incorporated by reference.

(b) The proposed disposal method and the site to be used for disposing of onsite sewage treatment and disposal system septage.

(c) The contractor registration number and certificate of authorization number, if applicable.

(3) When a permit is issued, the number of said permit along with the name of the company, its phone number, and the gallon capacity of the truck shall be prominently and permanently displayed on the service truck in contrasting colors with 3 inch or larger letters. Use of removable magnetic signs shall not be considered permanent display of vehicle identification information. A septage disposal service permit shall be suspended, revoked or denied by the department in accordance with Chapter 120, F.S., for failure to comply with requirements of this chapter.

(4) After septage or food establishment sludge is removed from an onsite sewage treatment and disposal system, the original lid of the tank shall be put back in place, or be replaced with a new lid if the original lid is broken. The tank lid shall be completely sealed and secured as per paragraph 64E-6.013(2)(k), F.A.C., and the ground backfilled and compacted so that the site is left in a nuisance free condition.

(a) Contents of any treatment tank, including all chambers of a multichambered tank, or pump tank shall be removed in their entirety when pumped. Where in the opinion of the person pumping any onsite sewage treatment and disposal system waste receptacle or pump tank, the complete removal of all tank contents may create an unintended problem in regards to the continued use of the system, a complete pumpout is not required. The pumper must document, in writing, to the system owner the reason for the partial pumpout, the gallonage pumped from the system, and what material was left in the tank.

(b) The access to pump a tank must be through the lid of the tank, through the manhole or by moving a sectional lid. Where the tank is chambered, separate chambers must be accessed through the manholes or sectional lid for the chamber being pumped. Pumping shall not be accomplished by entering the tank through inlets or outlets. Where the lid of the tank must be broken in order to gain access for the removal of tank contents, or at anytime when the lid is broken, the lid shall be replaced.

(5) Untreated food establishment sludges, and septage shall be transported to an approved treatment facility in such a manner as to preclude leakage, spillage or the creation of a sanitary nuisance.

(6) Treated septage and sludges shall be transported to the disposal site in such a manner so as to preclude leakage, spillage or the creation of a sanitary nuisance.

(7) The food establishment sludge and contents from onsite waste disposal systems shall be disposed of at a site approved by the DOH county health department and by an approved disposal method. Untreated domestic septage or food establishment sludges shall not be applied to the land. Criteria for approved stabilization methods and the subsequent land application of domestic septage or other domestic onsite wastewater sludges shall be in accordance with the following criteria for land application and disposal of domestic septage.

(a) Land application of domestic septage and sludges shall be permitted provided such septage and sludges have been properly treated by an approved septage-stabilization process, including lime stabilization, and an application using Form DH 4012 has been completed as part of the permitting process. Prior to discharge of septage or food establishment sludge into a stabilization tank, the septage or sludge shall be screened in a pretreatment tank or chamber which contains a final screening method using bar screens having a maximum gap of 1/2 inch or rock screens or other similar mesh material having a maximum 3/4 inch opening. Material retained in the screening process shall be limed, containerized, and disposed of at an approved solid waste disposal facility. Septage or sludge shall pass from the pretreatment tank or chamber to the stabilization tank. Lime stabilization of septage shall be in accordance with processes and designs described in Chapter 6, EPA 625/1-79-011, Process Design Manual for Sludge Treatment and Disposal, hereby incorporated by reference. Facilities approved for septage treatment under this rule shall not receive and treat more than 20,000 gallons of septage or combined septage, grease interceptor, portable toilet or other receptacle waste associated with an onsite sewage treatment and disposal system on any one day and shall not exceed a monthly average of 10,000 gallons of septage or septage and combined domestic waste per day. Stabilization by lime shall raise the pH of the septage to a level of 12 for a minimum of two hours or to a level of at least 12.5 for a minimum of 30 minutes to be deemed sufficient. The pH of the stabilized septage shall be maintained at a level of at least 11 until actual land application, but shall not be landspread until the pH of the

stabilized septage has fallen below 12.5. To check the pH of the stabilized septage, a sampling port having an internal diameter of no less than 1/2 inch and no more than 3/4 inch and located no more than 60 inches above the ground surface shall be used to allow sampling of waste tank contents. Lime purchase receipts shall be kept at the place of business for a minimum of 6 months.

1. Use on playgrounds, parks, golf courses, lawns, hospital grounds, or other unrestricted public access areas where frequent human contact is likely to occur is prohibited.

2. Application is limited to sod farms, pasture lands, forests, highway shoulders and medians, plant nursery use, land reclamation projects and soils used for growing human food chain crops. Application methods shall be conducted in a manner which will disperse the treated septage uniformly over the land application site.

a. Pasture vegetation on which stabilized septage or sludge has been applied shall not be cut for hay or silage nor grazed for a period of 30 days from the last application.

b. No human food chain crops except hay, silage, or orchard crops shall be harvested from a land application area for a period of 60 days following the last application of septage or sludges.

c. Domestic septage or sludge shall not be used for the growing or cultivation of tobacco, root crops, leafy vegetables, or vegetables to be eaten raw. Vegetables and fruits which come in contact with the ground surface shall not be grown on land used for septage application for a period of 18 months after the last application of septage or sludge.

d. When applied to unvegetated soils, stabilized domestic septage or sludge shall be incorporated into the soil within 48 hours of application.

(b) No land application of stabilized septage or food service sludge may occur until:

1. The site has been inspected and approved by department personnel.

2. The site evaluation fee has been submitted.

3. An agricultural use plan has been completed for the proposed application site.

a. Agricultural use plans shall describe the manner in which treated domestic septage and sludges are to be used as part of a planned agricultural operation. Methods of application, proposed crops and their fertilizer needs, vegetative types proposed, erosion management, access control for humans and animals, and anticipated harvesting periods shall be included.

b. Agricultural use plans shall include information on the soil and geologic conditions at the disposal site which could limit the areas available for land application.

4. The plan has been submitted for review and approval to the DOH county health department having jurisdiction.

5. The DOH county health department has granted approval to use the site.

(c) No person shall dispose of domestic septage or sludge by land application unless they have complied with approved treatment and disposal methods described in Rule 64E-6.010, F.A.C. Lime stabilization in the tank of a septage hauling vehicle or in the tank of an onsite sewage treatment and disposal system is not an approved septage treatment method.

(d) Land application of septage shall occur only in accordance with paragraph 64E-6.010(7)(a), F.A.C., unless prohibited by the DOH county health department due to a brief condition which creates a potential for a sanitary nuisance as exemplified in paragraph 64E-6.010(7)(l), F.A.C.

(e) All septage and septage-related haulers regulated by Chapter 64E-6, F.A.C., are to maintain a collection and hauling log at the treatment site or at the main business location which provides the information listed in 1. through 8. below. Septage related haulers who haul only portable toilet or holding tank waste shall maintain a daily log which includes 1., 4., 6., 7. and 8., below. Records shall be retained for five (5) years.

1. Date of septage or water collection;

2. Address of collection;

3. Indicate whether the point of collection is a residence or business and if a business, the type of business;

4. Estimated volume, in gallons, of septage or water transported;

5. Receipts for lime or other materials used for treatment;

6. Location of the approved treatment facility;

7. Date and time of discharge to the treatment facility; and

8. Acknowledgement from treatment facility of receipt of septage or waste.

(f) All Department of Health-regulated septage treatment facility operators shall maintain permanent records of the septage or waste receipt, treatment and discharge. Records shall be retained for five (5) years. At a minimum, these records shall include the following.

1. Date and time of each load of septage or waste is received;

2. Name of company from which the septage or waste is received;

3. Identification of the truck from which the septage or waste was received;

4. Signature from the driver acknowledging delivery of the septage or waste;

5. Quantity of septage or waste received;

6. Date and time of discharge of each load of treated septage or waste;

7. Name of the company which received the treated septage or waste from the treatment facility;

8. Signature from the driver of the truck which received the treated septage or waste; and

9. Quantity of treated septage or waste discharged to the truck.

(g) A summary of the total volume of septage applied to each site shall be submitted to the DOH county health department quarterly.

(h) Domestic wastewater systems residuals shall not be mixed with septage for treatment and disposal at department approved sites.

(i) Septage which contains toxic or hazardous waste must be disposed of in accordance with the rules of the Department of Environmental Protection.

(j) The land application area shall not be located closer than 3000 feet to any Class I water body or Outstanding Florida Water as defined in Chapter 62-302, F.A.C. or 200 feet to any surface water bodies except canals or bodies of water used for irrigation purposes which are located completely within and not discharging from the site. The land application area shall not be located closer than 500 feet to any shallow public water supply wells, nor closer than 300 feet to any private drinking water supply well. The application area shall be no closer than 300 feet to any habitable building and a minimum of 75 feet from property lines and drainage ditches.

(k) The land application site shall have a minimum 24 inches of unsaturated soil above the ground water table at the time of septage or sludge application. The seasonal high ground water table for the site may be indicated in the Agricultural Use Plan by soil survey maps. If the wet season high ground water table is within 2 feet of the surface or is not determined in the Agricultural Use Plan, the water table encountered at the time of septage or sludge application shall be determined by use of a monitoring well.

(l) Septage or sludge shall not be applied during rain events of sufficient magnitude to cause runoff, or during periods in which surface soils of the land application area are saturated. The land application area shall have sufficient buffer areas or stormwater management structures to retain the runoff from a ten-year one-hour storm on the site. Sufficient septage storage capacity shall be provided for periods of inclement weather and equipment failure. Facilities shall be designed, located, and operated to prevent nuisance conditions and avoid site run-off.

(m) Land application area topographic grades shall not exceed 8 percent.

(n) The land application area and an area 200 feet wide adjacent to, and exterior of, the land application area boundary shall contain no subsurface fractures, solution cavities, sink holes, excavation core holes, abandoned holes, or any other natural or manmade conduits which allow contamination of ground water. Determinations of site conditions shall be made as part of a geophysical examination of the property by qualified persons.

(o) Florida water quality criteria for groundwater and surface water shall not be violated as a result of land application of septage or sludge. Water quality testing of application areas may be required if the department determines that septage application not conforming to this rule is evident. If water quality violations are indicated, the site owner shall suspend land application activities.

(p) A layer of permeable soil at least 2 feet thick shall cover the surface of the land application area.

(q) Application rates of septage and food establishment sludges are limited by the nitrogen content of the waste. The maximum annual surface application rate of total nitrogen is 500 pounds per acre during any 12-month period. Application of septage shall be applied as evenly as possible during the 12 month period to ensure maximum uptake of nitrogen by the crops used. This equates to 6 dry tons or 40,000 gallons of typical septage per acre per year. However, if the following formula, based on the annual uptake of nitrogen for a given crop is used, the 40,000 gallons of septage applied per acre per year shall be increased if the nitrogen content of the septage will not exceed the nitrogen uptake of the crop.

$$AAR = N \div 0.0026$$

AAR is the annual application rate in gallons per acre per 365 day period; and N equals the amount of nitrogen in pounds per acre per 365 day period needed by the crop or vegetation grown on the land. Application methods shall be conducted in a manner which will disperse the treated septage uniformly over the land application site.

(r) Permanent records of actual application areas and application rates shall be kept. These records shall be maintained by the site owner, lessee, or the land applicator for a period of five years, and shall be available for inspection upon request by the department or by DEP. An annual summary of the total septage or sludge applied shall be provided with the annual update to the Agricultural Use Plan. Records shall be kept and shall include:

1. Location of the septage treatment facility from which each load of treated septage is obtained.
2. Date and time the treated septage was obtained from the treatment facility.
3. Dates of septage or sludge land application.
4. Weather conditions when applied.
5. Location of septage or sludge application site.
6. Amounts of septage or sludge applied.
7. Specific area of the site where septage or sludge was applied.
8. pH of stabilized septage or sludge being applied.
9. Soil groundwater table when septage was applied.
10. Vegetational status of application area.

(s) Food establishment sludges may be discharged into permitted domestic wastewater treatment facilities pursuant to the requirements of Chapter 62-600, F.A.C.



(t) Application of food establishment sludge to the land shall be permitted if such food establishment sludge has been properly treated by lime stabilization, or by any other process which produces similar kills of microorganisms and has been approved by the State Health Office.

(u) Mixing of unstabilized food establishment sludge with stabilized septage prior to land application is not permitted.

(v) Food establishment sludge shall be blended with septage and treated prior to land application. The ratio of food establishment sludge to septage shall be no greater than 1:1.

(8) Stabilization tanks and septage storage tanks may be located at regional stabilization facilities, at sites owned by the disposal service or at sites owned by the owner or lessee of the septage land application site.

(9) Potable water supplies located at the stabilization tank and septage storage tank site shall be provided with back flow prevention devices to prevent potential contamination of water supplies.

(10) Portable Toilets, Sinks and Holding Tanks.

(a) The department shall approve, on a temporary basis, portable toilets, or holding tanks for fairs, carnivals, revivals, field locations, encampments and other locations which lack permanent structures where people congregate for short periods of time, provided the construction, maintenance, and utilization of such systems conform to the general provisions of this chapter. Portable toilets, holding tanks or other toilet facilities shall be provided at construction sites for the duration of construction any time workers are present, and shall not be bound by the definition of temporary. The department shall waive or reduce any of the setback requirements of subsections 64E-6.005(1)-(3), F.A.C., where it is determined no health hazard will result. For purposes of this rule, a holding tank is any sealed, water tight fixture for receiving and storing domestic wastewater from plumbing fixtures in remote locations or at construction sites or special events. For purposes of this rule, a portable toilet is a transportable, self contained static or flush-type toilet constructed to promote a sanitary environment at remote locations, construction sites or special events, comprised of at least a waste storage receptacle, a riser and toilet seat and a protective enclosure. Portable toilets at construction sites or at a location for a temporary period of time do not require a permit from the department, but must comply with the provisions of this rule.

(b) The department shall permit and approve, for permanent use or placement, portable toilets or holding tanks at continually used locations where toilet facilities are desirable for the promotion of public health and where conventional facilities are neither available nor practical. Examples of such locations would be boat ramps, golf courses, or other places where people congregate which meet the above criteria. The portable toilet service company providing portable toilets shall be responsible for maintenance of the unit and removal if conventional facilities are made available.

(c) Portable toilets shall be self-contained, have self closing doors and shall be designed and maintained so that insects are excluded from the waste container.

(d) Portable toilet service company operators shall use Table PT I to determine the required number of facilities for special events for use in situations where no local or state codes provide a minimum number of toilet facilities. Table PT I assumes that the portable toilets are serviced only once per day. If the toilets are serviced twice per day, the value from the table shall be divided by two. If they are pumped three or more times per day, the value shall be divided by three. All resulting fractional numbers of toilets required shall be rounded up to the next higher whole number of toilets. If permanent toilet facilities are available for use by the attendees, the number of portable toilets may be reduced based on the number of attendees the permanent facilities are designed to accommodate. At least one working day prior to the special event, special event organizers shall provide to the county health department a signed contract, or facsimile copy thereof, with the portable toilet service company specifying the dates the facilities will be on the event site, the number of toilet facilities to be provided, the servicing frequency and the removal date for the units.

(e) Table PT II shall be used to determine the number of required facilities at remote locations.

(f) Waste receptacles shall be watertight and made of non-absorbent, acid resistant, corrosion-resistant and easily cleanable material.

(g) The floors and interior walls shall have a non-absorbent finish and be easily cleanable.

(h) The inside of the structure housing the storage compartment shall be cleaned and disinfected on each service visit.

(i) Each portable toilet shall have listed in a conspicuous place the name and telephone number of the servicing company.

(j) Portable toilets shall be maintained in a sanitary condition. Portable toilets at special events shall be serviced at least daily.

TABLE PT I  
NUMBER OF PORTABLE TOILETS REQUIRED FOR SPECIAL EVENTS  
(ASSUMES SERVICING ONCE PER DAY)

NUMBER OF PEOPLE PER DAY	NUMBER OF HOURS FOR EVENT PER DAY									
	1	2	3	4	5	6	7	8	9	10
250	2	2	2	2	2	3	3	3	3	3
500	2	3	4	4	4	4	4	4	4	4
1000	4	5	6	7	7	8	8	8	8	8
2000	6	10	12	13	14	14	14	15	15	15
3000	9	14	17	19	20	21	21	21	21	22
4000	12	19	23	25	28	28	28	30	30	30
5000	15	23	30	32	34	36	36	36	36	36
6000	17	28	34	38	40	42	42	42	44	44

7000	20	32	40	44	46	48	50	50	50	50
8000	23	38	46	50	54	57	57	58	58	58
9000	26	42	52	56	60	62	62	62	64	64
10,000	30	46	57	63	66	70	70	72	72	72
12,500	36	58	72	80	84	88	88	88	88	92
15,000	44	70	84	96	100	105	105	110	110	110
17,500	50	80	100	110	115	120	125	125	126	126
20,000	57	92	115	125	132	138	138	144	144	150
25,000	72	115	144	154	168	175	175	176	176	184
30,000	88	138	168	192	200	208	208	216	216	216

TABLE PT II  
PORTABLE TOILETS REQUIRED FOR REMOTE LOCATIONS  
PER SITE OR LOCATION  
(ASSUMES SERVICING ONCE PER WEEK)

NUMBER OF PEOPLE PER SITE 8 HOURS PER DAY – 40 HOURS PER WEEK	NUMBER OF TOILETS REQUIRED
1-10	1
11-20	2
21-30	3
31-40	4
41-50	5
over 50	Add 1 toilet for every 10 additional people or fraction thereof

TABLE PT III  
HOLDING TANK CAPACITY REQUIRED FOR REMOTE LOCATIONS, AND SPECIAL EVENTS  
PER SITE OR LOCATION  
(ASSUMES SERVICING TWICE PER WEEK)

NUMBER OF PEOPLE PER SITE 8 HOURS PER DAY – 40 HOURS PER WEEK	MINIMUM HOLDING TANK CAPACITY (IN GALLONS)
1	140
2-3	280
4-5	560
6-7	840
over 7	Add 140 gallons for each additional person

(k) Portable hand washing facilities shall be self-contained and have a fresh water compartment and a wastewater compartment.

(l) Portable hand washing facilities shall be provided in a proportion of one hand wash facility to every ten portable toilets required, and shall be provided at special events and remote locations where food is served or picnic areas are provided. With the exception of locations where food is served, hand sanitizers may be used in lieu of hand washing facilities, at the option of the applicant.

(m) The number and location of portable toilet and hand washing facilities for food handlers at special events shall be based on this section or applicable local or state food hygiene requirements, whichever is greater.

(n) An applicant for a holding tank installation permit shall provide to the county health department a copy of a contract with a permitted disposal company which states the holding tank capacity and the scheduled tank pumping frequency.

(o) Holding tanks shall be serviced at least weekly to prevent insanitary conditions.

(p) Table PT III shall be used to determine the required total capacity of holding tanks serving a remote location or special event. The values from Table PT III shall be adjusted proportionately to the number of times per week the holding tank will be emptied.

(q) Persons servicing portable toilets, portable hand washing facilities and holding tanks shall obtain an annual permit on Form DH 4013, 01/92, Operating Permit, herein incorporated by reference, from the county health department in the county in which the service company has an office or storage yard. Permits issued under this section authorize the disposal service to handle liquid waste associated with portable toilets, portable hand washing facilities and holding tanks containing domestic wastewater produced in the State of Florida.

(r) Application for a service permit shall be made to the county health department on Form DH 4012, 01/92, "Application for Septage Disposal Service Permit, Temporary System Service Permit, Septage Treatment and Disposal Facility, Septic Tank Manufacturing Approval" herein incorporated by reference, which may be obtained by contacting the department. The following must be provided for the evaluation prior to issuance of a service permit:

1. The permanent location and address of the business where operations will originate and where equipment is to be stored when it is not in use.

2. The proposed disposal method and the site to be used for disposing of the waste.

(s) The following equipment, maintenance and service requirements shall be complied with:

1. Vehicles used for servicing portable toilets, privies and holding tanks shall be provided with a dual compartment tank. One tank shall be used for receiving and removing wastes and shall be equipped with a suction hose having a cut-off valve not more than 36 inches from the intake end. The second tank shall be used for clean water storage and shall have adequate capacity to allow proper cleaning of each serviced unit.

2. Standby portable toilet service equipment shall be available for use during breakdowns or emergencies. If equipment from another approved service is to be used for stand-by purposes, a written agreement between the services must be provided to the county health department.

3. The waste storage compartment of a tank truck shall be maintained as necessary to prevent the creation of sanitary nuisance conditions.

(t) When a permit is issued, the number of said permit along with the name of the company, its phone number, and the gallon capacity of the truck shall be prominently and permanently displayed on the service truck in contrasting colors with 3 inch or larger letters. Use of removable magnetic signs shall not be considered permanent display of vehicle identification information.

(u) A servicing permit shall be suspended, revoked, or denied by the department in accordance with Chapter 120, FS, for failure to comply with the requirements of this chapter.

(v) Holding tank, portable toilet, and portable hand sink wastes shall be disposed of into a septage treatment and disposal facility approved by the department or into a treatment facility approved or permitted for such disposal by the Department of Environmental Protection. These wastes shall be land applied under provisions of subsection 64E-6.010(7), F.A.C., provided an approved DEP treatment facility is not available. Companies which service holding tanks or portable toilets which use quaternary ammonium sanitizing and deodorizing compounds are prohibited from having the wastes treated or disposed of at lime stabilization facilities.

(w) When disposed of in a department approved lime stabilization facility, the portable toilet, portable hand washing and holding tank wastes shall be blended with domestic septage at a rate of no less than 3 parts septage to 1 part holding tank, portable toilet or portable hand washing facility waste prior to lime stabilization. Treatment and disposal shall comply with the provisions of paragraphs 64E-6.010(7)(a)-(u), F.A.C.

(x) Contents of portable toilets and holding tanks shall be removed in their entirety when pumped.

(11) All materials incorporated herein may be obtained by contacting the department.

*Specific Authority 154.06, 381.0011, 381.006, 381.0065, 489.553, 489.557 FS. Law Implemented 154.01, 381.001, 381.0011, 381.0012, 381.0025, 381.006, 381.0061, 381.0065, 381.00655, 381.0066, 381.0067 386.041 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.52, Amended 3-17-92, 1-3-95, 5-14-96, Formerly 10D-6.052, Amended 3-22-00.*

#### **64E-6.011 Abandonment of Systems.**

(1) Whenever the use of an onsite sewage treatment and disposal system is discontinued following connection to a sanitary sewer, following condemnation or demolition or removal or destruction, of a building or property, or discontinuing the use of a septic tank and replacement with another septic tank, the system shall be abandoned within 90 days and any further use of the system for any purpose shall be prohibited. However, if the Department of Environmental Protection or its designee approves the use of the retention tank where the tank is to become an integral part of a sanitary sewer system or stormwater management system, the septic tank need not be abandoned.

(2) The following actions shall be taken, in the order listed, to abandon an onsite sewage treatment and disposal system:

(a) Property owner or agent shall apply for a permit from the department to abandon the existing onsite sewage system and submit the required fee. Upon receiving a permit:

(b) The tank shall be pumped out.

(c) The bottom of the tank shall be opened or ruptured, or the entire tank collapsed so as to prevent the tank from retaining water, and

(d) The tank shall be filled with clean sand or other suitable material, and completely covered with soil.

(e) An inspection of the system abandonment shall be conducted by the department or by the local utility or plumbing authority performing the system abandonment.

(3) The permitting provisions of paragraph 64E-6.011(2)(a), F.A.C., are not required if a local utility or local plumbing authority performs a system abandonment program which requires the completion of those steps listed in paragraphs 64E-6.011(2)(b), (c), (d), and (e), F.A.C. If the system abandonment is performed by a local utility or local plumbing authority, the local utility or local plumbing authority performing the abandonment program shall maintain a log of all inspections performed and shall forward the log to the County Health Department on a monthly basis.

*Specific Authority 154.06, 381.0011, 381.006, 381.0065, 489.553, 489.557 FS. Law Implemented 154.01, 381.001, 381.0011, 381.0012, 381.0025, 381.006, 381.0061, 381.0065, 381.00655, 381.0066, 381.0067, Part I 386 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.53, Amended 3-17-92, 1-3-95, Formerly 10D-6.053, Amended 6-18-03.*

#### **64E-6.012 Standards for the Construction, Operation, and Maintenance of Aerobic Treatment Units.**

When aerobic treatment units are used for treating domestic and commercial sewage waste, each unit shall be installed, operated and maintained in conformance with the following provisions:

(1) Aerobic systems designed to treat up to 1500 gallons of sewage waste per day shall be listed by a third party certifying program approved by the State Health Office. Aerobic treatment units shall be in compliance with standards for Class I systems as defined by ANSI/NSF International Standard Number 40, revised July 1990, hereby incorporated by reference. An approved third party certifying program shall comply with the following provisions in order for units which it has certified to be approved for use in Florida:

(a) Be accredited by the American National Standards Institute.

(b) Have established procedures which send representatives to distributors in Florida on a recurring basis to conduct evaluations to assure that distributors of certified aerobic units are providing proper maintenance, have sufficient replacement parts available, and are maintaining service records.

(c) Notify the department State Health Office of the results of monitoring visits to manufacturers and distributors within 60 days of the conclusion of the monitoring. Approved distributors must be reported by the manufacturer to the certifying agency.

(d) Submit completion reports on testing for review by the State Health Office.

(e) Provide a registered certification mark or seal which must be affixed in a conspicuous location on the units it has certified. This mark or seal will alert persons evaluating or maintaining the unit that the unit is in compliance with ANSI/NSF Standard 40.

(2) The following additional requirements shall also apply to the construction, design, and operation of aerobic treatment units treating 1500 gallons per day or less:

(a) An appropriate mechanism shall be provided to make access ports vandal, tamper, and child resistant. Acceptable protection of openings shall consist of one or more of the following methods as specified by the tank manufacturer:

1. A padlock.

2. An "O" ring with twist lock cover requiring special tools for removal.

3. Covers weighing 65 pounds or more, net weight.

4. A hinge and hasp mechanism which uses stainless steel or other corrosion resistant fasteners to fasten the hinge and hasp to the lid and tank for fiberglass, metal, or plastic lids.

(b) A minimum of a 4 inch diameter sampling access port located between the tank outlet and the drainfield.

(c) A visual and audio warning device shall be installed in a conspicuous location so that activation of such warning device will alert property occupants of aerobic unit malfunction or failure. All warning devices shall be wired separately from the aerobic unit so that disconnecting the aerobic unit from electricity will activate the warning device. If installed outside, the alarm shall be waterproof.

(d) Each unit shall be designed or equipped so that regardless of unusual patterns or frequencies of sewage flow into the system effluent discharged to the drainfield will be in compliance with Class I effluent quality standards as defined by ANSI/NSF Standard 40.

(e) Minimum required treatment capacities for systems serving any structure, building or group of buildings shall be based on estimated daily sewage flows as determined from Table IV.

**TABLE IV AEROBIC SYSTEMS  
PLANT SIZING**

#### **RESIDENTIAL:**

Number of Bedrooms	Building Area in square feet	Minimum Required Treatment Capacity gallons per day
1 or 2	Up to 1200	400
3	1201-2250	500
4	2251-3300	600

For each additional bedroom or each additional 750 square feet of building area, or fraction thereof, treatment capacity shall be increased by 100 gallons.

COMMERCIAL:

Estimated Sewage Flow in gallons per day	Minimum Required Treatment Capacity in gallons per day
0-400	400
401-500	500
501-600	600
601-700	700
701-750	750
751-800	800
801-1000	1000
1001-1200	1200
1201-1500	1500

Footnotes to Table IV

1. Where the number of bedrooms and the corresponding building area in Table IV do not coincide, the criteria which results in the greatest required treatment capacity shall apply.

2. These figures assume that the aerobic system will be treating domestic strength sewage with CBOD<sub>5</sub> and suspended solids values typically not exceeding 300 and 200 milligrams per liter, respectively. For wastewaters with higher CBOD<sub>5</sub>, higher suspended solids values, or for facilities that exhibit short-term hydraulic surge conditions, additional treatment or pre-treatment facilities shall be required when specified by design engineers, plant manufacturers, or by the DOH county health department.

(f) There shall be no bypass capability designed into the system which will allow waste to be discharged to the drainfield without undergoing all the treatment processes necessary to achieve the desired effluent quality. Bypassing, removing, or excluding any component or components of a system after the system has received final installation approval is prohibited.

(g) Effluent from an aerobic treatment unit shall be disposed of on the owner's property in conformance with other requirements of this chapter except as provided for in paragraph 64E-6.012(2)(f), F.A.C. Effluent quality which is found to not meet Class I standards as specified by ANSI/NSF Standard 40 shall be reported to the maintenance entity for correction within 10 working days.

(h) Units meeting Class I Standards as specified by ANSI/NSF Standard 40 shall receive consideration, via the variance review process, for use where daily domestic sewage flow limitations of Rule 64E-6.005, F.A.C., are exceeded or where a high level of sewage treatment is warranted. Also, for Class I units where slightly limited soil textures exist on a site, the required drainfield size may be reduced by 25 percent from the requirements in subsection 64E-6.008(5) or paragraph 64E-6.009(3)(d), F.A.C.

(i) A manufacturer, distributor or seller of aerobic treatment units shall furnish, to the State Health Office, 90 copies of completion reports and engineering drawings showing the design and construction details of all models of approved Class I units to be constructed or installed under the provisions of this rule. The State Health Office will forward these drawings to each DOH county health department. No aerobic unit shall receive final installation approval until the unit is found to be in compliance with all provisions of this rule, including compliance with design and construction details shown on the engineering plans filed with DOH county health department and the State Health Office.

(j) A distributor of a specific manufacturer's brand or model of an approved aerobic treatment unit shall provide to the DOH county health department and State Health Office written assurance that spare mechanical and structural parts are available, upon request, for purchase, to all other approved maintenance entities.

(k) Where local building occupancy codes require that the DOH county health department approve the means of sewage disposal prior to building occupancy or change of occupancy, and where an aerobic treatment unit is utilized, a current, unexpired aerobic treatment unit maintenance contract between the property owner or lessee and an approved maintenance entity shall be one of the required conditions of system approval.

(l) A copy of the signed maintenance agreement between the property owner or property lessee and an approved maintenance entity shall be provided to the DOH county health department by the maintenance entity. The maintenance agreement shall:

1. Initially be for a period of at least 2 years and subsequent maintenance agreement renewals shall be for at least 1 year periods for the life of the system.

2. Provide that a maintenance entity which desires to discontinue the provision of maintenance services, notify in writing, the property owners and lessees and the DOH county health department at least 30 days prior to discontinuance of service.

3. Provide that, if a private maintenance entity discontinues business, property owners who have previously contracted with the discontinued maintenance service shall, within 30 days of the service termination date, contract with an approved maintenance service and provide the DOH county health department a copy of the newly signed maintenance agreement.

4. Provide that each aerobic unit is inspected by an approved maintenance entity at least two times each year. Aerobic treatment units serving commercial establishments shall be inspected four times per year. The maintenance entity shall furnish to the DOH county health department a listing of all aerobic units inspected or serviced during the respective reporting period. As a minimum, reports shall indicate the system owner or building lessee, the street address of the system, the date of system inspection or service and a statement as to the maintenance or service performed. The maintenance entity shall also include a list of the owners who have refused to renew their maintenance agreement.

(m) The DOH county health department shall, at least annually, inspect the maintenance and performance of aerobic treatment units. The DOH county health department shall also inspect each authorized maintenance entity, including review of their service records and maintenance agreements. Aerobic treatment units shall be sampled as necessary to determine compliance with performance criteria.

(3) An aerobic treatment unit used for treating domestic sewage flows in excess of 1500 gallons per day but not exceeding 10,000 gallons per day shall be designed and certified by an engineer registered in the State of Florida. The certification shall state that the unit is capable of consistently meeting, at minimum, secondary treatment standards established by DEP in Rule 62-600.420, F.A.C. In addition, the following requirements shall also be met:

(a) The drainfield system shall meet minimum setback and elevation requirements specified by this rule.

(b) The owner or lessee of a system shall comply with the applicable safety, maintenance and operational requirements of subsection 64E-6.012(2), F.A.C. Unless the system owner or lessee is a state licensed wastewater treatment plant operator, the owner or lessee shall be required to have a system maintenance agreement with a permitted aerobic unit maintenance entity which has at least a Class D state certified operator who has been certified under the provisions of Chapter 61E12-41, F.A.C.

(c) A permitted aerobic unit maintenance entity with a minimum Class D certified operator, or a system owner or lessee holding at minimum a Class D certification under the provisions of Chapter 61E12-41, F.A.C., shall collect effluent quality samples and submit the sample analysis reports to the DOH county health department. Effluent quality samples for CBOD<sub>5</sub>, suspended solids and fecal coliform shall be collected at least semi-annually and such samples shall be analyzed by a department-approved laboratory.

(d) Written sample analysis reports shall be submitted to the DOH county health department by no later than the 15th of the next month following the semi-annual sampling period. However, if the sample analysis for CBOD<sub>5</sub> or suspended solids exceed secondary treatment standards by more than 100 percent, the maintenance entity or certified operator shall notify the DOH county health department by telephone or in person within 24 hours after receipt of sample analysis results.

(e) The DOH county health department shall monitor the maintenance and performance of aerobic treatments units as required by paragraph 64E-6.012(2)(m), F.A.C.

(4) No aerobic treatment unit shall be serviced or repaired by a person or entity engaged in an aerobic treatment unit maintenance service until the service entity has obtained an annual written permit issued on Form DH 4013 from the DOH county health department in the county where the service company is located. Each service entity shall employ at least one plumbing contractor licensed under Section 489.105(3)(m), F.S., septic tank contractor registered under Part III of Chapter 489, F.S., or a state-licensed wastewater treatment plant operator, who is responsible for maintenance and repair of all systems under contract. Application for a Maintenance Service Permit, Form DH 4066, shall be made to the DOH county health department and shall contain the following information:

(a) Evidence that the maintenance entity possesses a manufacturer's maintenance and operations manual and has received training from the manufacturer in proper installation and service of the unit and has received written approval from the manufacturer to perform service on their units. The manual shall contain detailed instructions on proper operation and maintenance procedures, a replacement parts list for all models being installed and maintained, a statement giving the capabilities of each unit, instructions on how to detect a malfunctioning unit and what to expect from a properly functioning unit.

(b) A signed statement from the applicant attesting that the applicant has adequate staff, possesses proper equipment and has sufficient spare structural and mechanical parts and components to perform routine system monitoring and servicing and is able to make a service response within 36 hours after notification of the need for emergency repairs.

(c) Payment of \$25.00 to the DOH county health department per annum for the aerobic treatment unit maintenance service permit.

(5) Emergency service necessary to prevent or eliminate an imminent sanitary nuisance condition caused by failure of a mechanical component of any aerobic treatment unit shall be reported by the approved aerobic unit maintenance entity, in writing, to the DOH county health department no later than 5 working days after the date of the emergency service.

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, Part I 386 FS. History—New 3-17-92, Amended 1-3-95, Formerly 10D-6.0541, Amended 11-19-97, 4-21-02, 6-18-03.*

#### **64E-6.013 Construction Materials and Standards for Treatment Receptacles.**

(1) Onsite wastewater treatment receptacle design – The following requirements shall apply to all onsite wastewater treatment receptacles manufactured for use in Florida unless specifically exempted by other provisions of these rules:

(a) Onsite wastewater treatment receptacles include: septic tanks, graywater tanks, laundry tanks, grease interceptors, pump tanks, aerobic treatment unit tanks, tanks containing treatment media.

(b) Treatment receptacles shall be watertight as defined in ASTM C1227 98, Standard Specification for Precast Concrete Septic Tanks, paragraph 9.2., herein incorporated by reference. ASTM C1227 98, paragraph 9.2.2, herein incorporated by reference, shall be modified to read as follows: Water-pressure testing – Fill the tank with water to the invert of the outlet and let stand for 24 hours. Refill the tank. The tank is approved as water tight if the water level is held for one hour.

(c) Structural design of receptacles shall be by calculation or by performance. Design by calculation shall be completed using the Strength Design Method (ultimate strength theory) or the Alternate Design Method (working stress theory) outlined in the American Concrete Institute (ACI) publication ACI 318-99, Building Code Requirements for Structural Concrete (318-99) and Commentary (318R-99), herein incorporated by reference. The Strength Design Method is outlined in Chapter 9 and the Alternate Design Method is in Appendix A. Equation (9-1), herein incorporated by reference, shall be modified to read as follows:  $U = 1.4L + 1.4D$ .

(d) When the Strength Design Method is used to verify satisfaction of the required strength a strength reduction factor of 0.90 shall be applied per ACI 318-99 paragraph 9.3.2.1.

(e) Structural design of receptacles shall be verified by actual vacuum load or hydrostatic test in accordance with the department's policy for Test Requirements for Structural Proofing August 1999, herein incorporated by reference. All vacuum testing shall be followed by a watertightness test as defined in ASTM C1227 98, Standard Specification for Precast Concrete Septic Tanks, paragraph 9.2. Manufacturers may use calculations provided by the design engineer in lieu of proof testing for tanks using reinforcement bars for structural strength and having a wall thickness of 5 inches or greater. Curve-shaped tanks, fiberglass tanks and polyethylene tanks shall be vacuum tested followed by a watertightness test. Vacuum testing of polyethylene tanks shall demonstrate a distortion of volume of no more than 5% at a safety factor of 1.0 and watertightness at a safety value of 1.4 to be considered satisfactory. To determine the vacuum or hydrostatic pressure at a 1.0 safety factor, divide by 1.4 the values required on pages 3 through 5 of the department's policy entitled "Test Requirements for Structural Proofing, August 1999", herein incorporated by reference.

(f) Testing shall be conducted in the presence of an engineer registered in the state of Florida, or by an employee of the department that has been certified by the State Health Office to perform or witness tank testing. Test results shall be certified by the engineer or state employee.

(g) Receptacle tank lids for non-traffic residential installations shall be designed for a dead load of 12 inch earth cover with a dry soil density of 100 pounds per cubic foot or a live load of two concentrated loads of 1750 pounds at a 60 inch spacing or a concentrated load of 1750 pounds located at the center of the tank lid, whichever provides the greater shear and moment stresses to the tank lid. The required strength shall be per ACI 318-99, equation (9-1) as follows:  $U = 1.4D + 1.7L$ . Structural integrity proof test or calculations for the 12 inch overburden earth load and the 1750 pound concentrated loading shall be provided. Designs sealed by an engineer registered in the state of Florida shall be acceptable for design proof of receptacle tank lid designs.

(h) Receptacles and receptacle tank lids for traffic installations shall be designed, signed and sealed by an engineer registered in the state of Florida. Whenever vehicular traffic is anticipated to cross over the septic tank or other onsite waste receptacle, traffic lids shall be installed with manhole covers to finished grade. Traffic receptacles and lids shall be designed in accordance with ASTM C 890-91 (Reapproved 1999), Standard Practice for Minimum Structural Design Loading for Monolithic or Sectional Precast Concrete Water and Wastewater Structures, herein incorporated by reference, for the appropriate loading. Application of paragraph 5.2.4 of ASTM C 890-91 (Reapproved 1999), shall be at the discretion of the design engineer.

(2) Onsite wastewater treatment receptacle design requirements – The following details shall be incorporated into the design:

(a) Septic tanks and graywater tanks shall have multiple compartments, or single compartment tanks shall be placed in series to achieve the required effective capacity. Grease interceptors, laundry tanks, pump tanks, aerobic treatment unit tanks and retention tanks shall be either multi-compartment or single compartment tanks. Except as noted in this paragraph, the first chamber of a dual compartment septic or graywater tank or the first tank of single compartment tanks in series shall have a minimum effective capacity of at least 2/3 of the total required effective capacity. The second single compartment tank or chamber of a multi-compartment tank shall have a minimum effective capacity of at least 1/5 of the total required effective capacity. The combined effective capacities of the first and second chambers or the first and second single-compartment tanks shall equal or exceed the total required effective capacity. Systems with daily flows in excess of 3500 gallons per day may utilize two tanks to achieve the total required effective capacity, provided that the first tank shall provide no less than 1/2 and no more than 4/5 of the total required effective capacity.

(b) The liquid depth of compartments for septic tanks and grease interceptors shall be at least 42 inches. The liquid depth of compartments for graywater tanks, laundry interceptors and pumping tanks shall be at least 30 inches. Liquid depths greater than 84 inches shall not be considered in determining the effective capacity.

(c) A minimum free board or airspace of 15 percent by volume of the effective capacity of all tanks shall be provided. The volume of risers above the liquid level line cast as an integral part of the tank may be included as free board or airspace. For pump tanks, the 15% airspace may be included in the pump tank minimum effective capacity.

(d) The inlet invert of septic tanks, graywater tanks and laundry interceptors shall enter the tank 1 to 3 inches above the liquid level of the tank. A vented inlet tee, vented sweep or a baffle may be provided at the discretion of the manufacturer to divert the incoming sewage. The inlet device, if utilized, shall have a minimum diameter of 4 inches and shall not extend below the liquid surface more than 33 percent of the liquid depth.

(e) In septic tanks, graywater tanks and laundry interceptors, a minimum 4 inch diameter vented outlet tee, sweep or baffle shall extend below the liquid level of the tank so that the invert level of the outlet device is a distance not less than 30 percent nor greater than 40 percent of the liquid depth. The outlet device shall extend at least 4 inches above the liquid level. The submerged intake orifice of any outlet fixture not incorporating an approved outlet filter device shall be provided with an approved solids deflection device to reduce, by a minimum of 90 percent, the intake area of the outlet fixture exposed to the vertical rise and fall of solid particles within the tank. Turning the intake orifice of an outlet tee or sweep 90 degrees from the vertical will satisfy the solids deflection device requirement.

(f) The inlet and outlet devices shall be located at opposite ends of the tank so as to be separated by the maximum distance practical and shall be in accordance with ASTM C 923-98, Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals, herein incorporated by reference. The building sewer can enter the side of the tank no more than 12 inches from the inlet end of the tank if this construction will allow for better plumbing routing of the building sewer to the septic tank. The outlet device can exit the side of the tank no more than 12 inches from the outlet end of the tank if this construction will allow for better plumbing routing from the septic tank to the drainfield.

(g) Compartment walls shall be designed to withstand the stresses induced by pumping out either of the compartments. There shall be no relief holes. However, the compartment walls may be inserted in grooves without grouting, fiberglassing or otherwise permanently attaching in place, unless such attachment is required for proving structural integrity of either the tank or compartment wall.

(h) Sewage flow between the first and second chamber of a multi-chamber tank shall interconnect utilizing either a minimum 4 inch diameter hole or equivalent size slot in the wall or with a minimum 4 inch diameter vented and inverted U-fitting or a tee. Tanks in series shall interconnect utilizing a minimum 4 inch diameter vented, inverted U-fitting or a tee. The outlet device or slot shall extend below the liquid level of the tank so that the invert level is located not less than 30 percent nor greater than 40 percent of the liquid depth.

(i) Joints of tanks, including mid-seams, risers, and tank lids shall be sealed using a bonding compound that meets ASTM C 990-96, Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections using Preformed Flexible Joint Sealants, herein incorporated by reference.

(j) The State Health Office's designated approval number for the tank, and the effective capacity of the tank in gallons shall be cast or stamped into the wall or permanently stenciled or decaled onto the wall at the inlet end, to begin within 6 inches of the top of the wall. All identifying marks shall be inscribed or affixed at the point of manufacture only. All information supplied in the legend shall be provided with a minimum of two inch high lettering.

(k) Each compartment shall have access using manholes, with each manhole having a minimum area of 225 square inches. Septic tanks and pump tanks with an effective capacity of 1200 gallons or less shall have a lid of one-piece construction. Septic tanks and pump tanks with an effective capacity of greater than 1200 gallons shall have a one piece lid or a lid with a maximum of three sections with each being equal in size. Manholes shall be located so as to allow access to the inlet and outlet devices. A minimum 6-inch diameter opening shall be placed at the inlet and outlet ends of the tank lid if a minimum 225 square inch access port is placed in the middle of the tank lid. The access manhole over the inlet and outlet shall extend to within 8 inches of finished grade, however the entire septic tank shall be covered with a minimum of four inches of soil cover. If a riser is used, and if the riser access lid opens directly to the tank interior, joints around the riser and tank shall be sealed and made watertight as specified in paragraph 64E-6.013(2)(i), F.A.C., to prohibit intrusion of ground water into the tank. For multi-compartment tanks or tanks in series, manholes shall extend to within 8 inches of finished grade over the first compartment inlet and the last compartment outlet. An appropriate mechanism shall be provided to make access manholes vandal, tamper, and child resistant. Acceptable protection of openings shall consist of one or more of the following methods as specified by the tank manufacturer:

1. A padlock.
2. A twist lock cover requiring special tools for removal.
3. Covers weighing 58 pounds or more, net weight.
4. A hinge and hasp mechanism which uses stainless steel or other corrosion resistant fasteners to fasten the hinge and hasp to the lid and tank for fiberglass, metal or plastic lids.

(l) Tank designs that specify a monolithic compartment wall from the bottom of the tank up to the invert of the pass-through orifice and a drop-in section for the upper portion of the wall shall be approved for both single and multi-compartment use.

(3) Onsite wastewater treatment receptacle design approval – All onsite wastewater treatment receptacles distributed in the state shall be approved for use by the department prior to being offered for sale or installed. Such approval shall not be obtained until the manufacturer of a specific tank model has submitted the following:

(a) Detailed design drawings of the tank and tank lid showing:

1. Design calculations or proof testing results in accordance with subsection 64E-6.013(1), F.A.C.
2. Dimensions, including location and size of all inlets, outlets, access hatches, manholes and pass through orifices.
3. Effective capacity in gallons.



4. Freeboard or air space in gallons.
5. Production materials. For concrete tanks include 28 day compressive strength, in pounds per square inch (psi).
6. Reinforcing materials. For concrete tanks, include size and location of all rebar, if any; and fiber reinforcing material size and quantity (in pounds) per cubic yard, if any.
- (b) For concrete tanks-see paragraph 64E-6.013(6)(k), F.A.C.
- (c) For fiberglass, polyethylene and similar material tanks-see paragraph 64E-6.013(7)(f), F.A.C.
- (d) Certification that the receptacle has undergone flow testing to confirm the effective capacity, airspace, and water tightness.
- (e) Designs shall be submitted to the State of Florida Department of Health, Bureau of Water and Onsite Sewage Programs.
- (f) There shall be four tank design classifications. The following criteria shall be used for each category:
  1. Category 1 tanks shall be designed for unsaturated soil. The design shall provide for 6 inches of dry soil cover over the top of the tank. Dry soil density shall be 100 pounds per cubic foot. The lateral earth pressure coefficient (K) shall be no less than 0.50.
  2. Category 2 tanks shall be designed for partially saturated soil with the saturation at 31 inches below the outlet invert. The design shall provide for 6 inches of wet soil cover over the top of the tank. Wet soil density shall be 110 pounds per cubic foot. The lateral earth pressure coefficient (K) shall be no less than 0.50.
  3. Category 3 tanks shall be designed for saturated soil with the saturation at the top of the tank surface. The design shall provide for 6 inches of wet soil cover over the top of the tank. Wet soil density shall be 110 pounds per cubic foot. The lateral earth pressure coefficient (K) shall be no less than 0.50.
  4. Category 4 tanks shall be designed for saturated soil with the saturation at the top of the tank surface. The design shall provide for 48 inches of wet soil cover over the top of the tank. Wet soil density shall be 110 pounds per cubic foot. The lateral earth pressure coefficient (K) shall be no less than 0.50. Where a tank will be placed with greater than 48 inches of soil over the top of the tank, an engineer registered in the state of Florida shall design the tank.
- (g) Soil cover shall be limited to 18 inches over the top of the tank lid. An additional 12 inches of soil cover shall be allowed for each increase in tank category when using a higher category tank in a lower tank category condition.
- (h) A series of receptacles may be approved by successful demonstration of the largest in a series of tanks. Approval for inclusion of the receptacles to be considered in a series must be obtained from the state health office prior to testing the receptacles. A series is either where only one dimension, this being height, length, or width, is changed or where two dimensions change in the same proportion to offer a different capacity of treatment tank.
- (i) The manufacturer shall notify the state health office in writing, stipulating the date, time and location of the test, no less than ten working days prior to the receptacle proof testing. The notice shall include the tanks to be tested. Approval shall not be granted until after successfully passing the required tests, and submitting the testing results.
- (j) The department will issue an approval number to the manufacturer. Form DH 4012, 01/92, "Application for Septage Disposal Service Permit, Temporary System Service Permit, Septage Treatment and Disposal Facility, Septic Tank Manufacturing Approval" herein incorporated by reference, shall be used to apply for septic tank manufacturing approval. The form can be obtained from the department.
- (4) Reapproval of receptacles approved prior to effective date of this rule- It shall be the responsibility of each manufacturer to apply for reapproval of existing tank designs. The reapproval request shall list the existing State of Florida approval numbers, indicating the effective capacity in gallons, liquid depth, and wall thickness. The state health office will review the manufacturer's files on record at the state office for verification of approval numbers and satisfactory detailed drawings. The state health office shall notify the manufacturer of deficiencies that must be corrected. The manufacturer shall provide engineering drawings or utilize a standard drawing and dimension table format provided by the state office. Designs shall be submitted to the State of Florida Department of Health, Bureau of Water and Onsite Sewage Programs. Flat concrete lid designs will be evaluated either by requesting in writing that the state health office perform the calculations using the working stress theory or by the manufacturer performing proof testing and submitting satisfactory results. Cylindrical tanks shall be proof tested. Reapproval shall be obtained only after the manufacturer of a specific tank model has submitted the following:
  - (a) Details of the tank and tank lid showing:
    1. Proof testing results in accordance with subsection 64E-6.013(1), F.A.C.
    2. Dimensions.
    3. Effective capacity in gallons.
    4. Freeboard or air space in gallons.
    5. Production materials.
    6. Reinforcing materials. Drawings on file with the state health office that do not detail reinforcing must be updated by the manufacturer.
  - (b) There shall be four tank design classifications. The criteria and categories in paragraph 64E-6.013(3)(f), F.A.C., shall be used.
  - (c) A series of receptacles may be approved by successful demonstration of the largest in a series of tanks. Approval for inclusion of the receptacles to be considered in a series must be obtained from the state health office prior to testing the receptacles.
  - (d) The manufacturer shall notify the state health office no less than ten working days prior to the receptacle proof testing. Approval shall not be granted until after successfully passing the required tests, and submitting the testing results.

(e) The department will issue an approval number to the manufacturer. Form DH 4012, 01/92, "Application for Septage Disposal Service Permit, Temporary System Service Permit, Septage Treatment and Disposal Facility, Septic Tank Manufacturing Approval" herein incorporated by reference, shall be used to apply for septic tank manufacturing approval. The form can be obtained from the department.

(5) Onsite wastewater treatment manufacturer's yearly inspection – Yearly inspection of the manufacturer's facility shall consist of the following:

(a) Verify that the manufacturer has the design mix recorded and in a readily accessible location for the plant operators.

(b) Verify that the production process is recorded and that the operators are following the process.

(c) Verify that the necessary tests are being conducted by a certified testing lab or by a technician certified by the ACI. The preparation of the test specimens shall be performed by certified third party testing laboratory personnel; or manufacturers, or their employees, that have successfully passed the certification program. Each manufacturer shall submit a minimum of three cylinders per year. The specimens shall be taken from a production mix.

(d) Verify that the manufacturer has the proper number of tests for the year and that the results are recorded. Review the results for compliance with the design.

(e) Examine the material stockpiles to insure that the materials are free from deleterious materials.

(f) Examine the measuring equipment to insure that the equipment has been calibrated within the last year.

(g) Examine conveyors to insure that material is transported as measured.

(h) Inspect a minimum of five tanks in the manufacturers' inventory. For different series, a minimum of one tank shall be inspected from each series. Report the following unacceptable defects:

1. Cracks in all interior and exterior surfaces of the tanks.

2. Cold joint lines. This is an indication of non-monolithic pours. Examine both the interior and exterior of the tank for confirmation of a cold joint that extends across the thickness of the wall.

3. Evidence of improper steel cover. Rebar and wire mesh shall not be exposed.

4. Watertight inlets and outlets shall be provided per rule.

(i) Where cold-joint lines that appear to extend through the wall, or cracks in any surface of the tank exist, conduct a watertightness test on a maximum of two tanks per ASTM C 1227-98, Standard Specification for Precast Concrete Septic Tanks, paragraph 9.2. The tanks shall not be tested until they have cured for 28 days. If there are no indications of cold-joint lines that appear to extend through the wall, or cracking of tank surfaces, two tanks shall be tested at random. Record all data and submit results to the department.

(j) Verify that the manufacturer is not relocating the tanks prior to the tank achieving 75% of the design compressive strength. Record how this is accomplished.

(k) Conduct Schmidt Hammer tests-record data.

(l) Yearly inspection shall be performed by an employee of the department that has been certified in accordance with the policy entitled "Test Requirements for Structural Proofing, August 1999". A report shall be submitted to the State Health Office.

(6) Concrete onsite wastewater receptacles shall be built of precast or poured in place concrete in accordance with ACI 318-99, Building Code Requirements for Structural Concrete (1999) or ASTM C 1227-98, Standard Specification for Precast Concrete Septic Tanks (1998), except as revised herein.

(a) For design and analysis of concrete septic tanks, the publication "Rectangular Concrete Tanks" revised 5<sup>TH</sup> edition (1998), as published by the Portland Cement Association may be used at the designer's discretion, herein incorporated by reference. When computing length to height and width to height ratios the designer may interpolate between tables for intermediate ratios and values or may use the table and values for the higher ratios.

(b) Temperature and shrinkage crack control in concrete receptacles shall be accomplished by use of steel reinforcing in accordance with ACI 318-99 Chapter 16, or by use of fiber reinforcement. Minimum ratio of vertical and horizontal reinforcement area to gross concrete area shall be 0.0010 for deformed bars or welded wire fabric. Fiber reinforcing materials may be used by the manufacturer to achieve crack control equivalent to the use of deformed bars or welded wire fabric. To be considered equivalent, acceptable fibers shall at least meet or exceed ACI recommendations regarding materials, fiber sizing, and required fiber quantities. Any current or future revisions to the ACI recommendations may be used by the manufacturer, at their option. Materials other than materials recognized by ACI for crack control use will not be acceptable.

(c) Concrete mixes shall be in accordance with the Portland Cement Association (PCA) publication entitled PCA Design and Control of Concrete Mixtures, Thirteenth Edition (1994), herein incorporated by reference.

(d) Terminology relating to concrete and concrete aggregates shall be in accordance with ASTM C 125-98, Standard Terminology Relating to Concrete and Concrete Aggregates (1998), herein incorporated by reference.

(e) Concrete aggregates used in the manufacturing of all precast or poured-in-place concrete receptacles for use in onsite sewage treatment and disposal systems shall conform to ASTM C 33-99, Standard Specification for Concrete Aggregates (1999), herein incorporated by reference.

(f) Minimum concrete cover over structural steel reinforcing shall be 3/4 inches. The minimum bend radius for structural reinforcing shall be three times the reinforcing bar diameter.

(g) Temperature and shrinkage crack control steel shall not be exposed. Exposure of fiber reinforcing is acceptable.

(h) Minimum 28-day compressive strength shall be 4000 psi.

(i) Three compressive test cylinders shall be prepared, cured, and tested in accordance with ASTM C 31-98, Standard Practice for Making and Curing Concrete Test Specimens in the Field (1998), herein incorporated by reference, and ASTM C 39-96, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens (1996), herein incorporated by reference, at least one time every year, or whenever the manufacturer changes the design mix or the manufacturing process.

(j) The bottoms of concrete septic tanks shall be monolithic and shall either be an integral part of the walls or shall be sealed to the walls using water-stops cast into the wall and bottom. Tank bottoms shall not contain openings for any purpose, for example, to facilitate the removal of rainwater.

(k) Reapproval of designs approved prior to the effective date of this rule and approval of new designs shall not be granted until the following has been completed and submitted as part of the application:

1. Establish a design mix and production process. Record the aggregate material, size and gradation; type and strength of cement; cement to aggregate ratios; water to cement ratio; and any other pertinent design data. Record the production process, for example; measuring equipment, batch sizes, mixing sequence, transportation techniques from mixer to mold, pouring techniques with consolidation of concrete methods detailed.

2. Construct three tanks using the design mix.

3. Test two sets of cylinders from the design mix at 7 day and 28 days.

4. Structural proof test three tanks to the design strength in accordance with paragraph 64E-6.013(1)(e), F.A.C., for tanks having an effective capacity of 1350 gallons or less.

5. Structural proof test one tank to the design strength in accordance with paragraph 64E-6.013(1)(e), F.A.C., for tanks having an effective capacity greater than 1350 gallons but not more than 1500 gallons.

6. Structural proof test one tank or provide tank strength calculations in accordance with paragraph 64E-6.013(1)(e), F.A.C., for tanks having an effective capacity exceeding 1500 gallons.

7. Verify that the manufacturer is not removing tanks from the producer's facility prior to the tank achieving 75% of the design compressive strength. Record how this is accomplished.

(7) Fiberglass reinforced plastic onsite wastewater receptacles – the following structural requirements are applicable to fiberglass and polyethylene receptacles, and receptacles made of a comparable class of materials:

(a) Materials and sealants used in the tank manufacturing process shall be capable of effectively resisting the corrosive influences of the liquid components of sewage, sewage gases and soil burial. Materials used shall be formulated to withstand shock, vibration, normal household chemicals, deterioration from sunlight and other environmental factors.

(b) Not less than 30 percent of the total weight of the fiberglass tank shall be fiberglass reinforcement.

(c) Internal surfaces shall be coated with an appropriate gel coating to provide a smooth, pore-free, watertight surface.

(d) Fiberglass tanks shall be constructed so that all parts of the tank meet the following mechanical requirements.

1. Ultimate tensile strength – minimum 12,000 psi when tested in accordance with ASTM D 638-98, Standard Test Method for Tensile Properties of Plastics (1998), herein incorporated by reference.

2. Flexural strength – minimum 19,000 psi when tested in accordance with ASTM D 790-98, Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials (1998), herein incorporated by reference.

3. Flexural modulus of elasticity – minimum 800,000 psi when tested in accordance with ASTM D 790-98 Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials (1998), herein incorporated by reference.

(e) Polyethylene tanks shall meet the requirements of International Association of Plumbing and Mechanical Officials (IAPMO) PS 1-93, Paragraph 5.4 "Polyethylene", herein incorporated by reference. Where the requirements of IAPMO PS 1-93 Paragraph 5.4 "Polyethylene" conflict with the standards in this section, the standards in this section shall apply.

(f) A test report from an independent testing laboratory is required to substantiate that individual tank designs and material formulations meet the requirements of (d) above.

(g) Reapproval of designs approved prior to August 31, 1999 and approval of new designs shall not be granted until the following has been completed and submitted as part of the application:

1. Establish a design mix and production process. Record the fiberglass and resin material specifications and other pertinent design data. Record the production process, for example; measuring equipment, batch sizes, mixing sequence, transportation techniques from mixer to mold, and spraying techniques.

2. Construct three tanks using the design mix.

3. Test two sets of test strips from the design mix.

4. Structural proof test three tanks to the design strength per paragraph 64E-6.013(1)(e), F.A.C., for tanks having an effective capacity of 1350 gallons or less.

5. Structural proof test one tank to the design strength in accordance with paragraph 64E-6.013(1)(e), F.A.C., for tanks having an effective capacity greater than 1350 gallons.

6. Verify that the manufacturer is not planning to relocate the tanks prior to the tank achieving 75% of the design compressive strength. Record how this is accomplished.

(8) Grease interceptors are not required for a residence. However, one or more grease interceptors are required where grease waste is produced in quantities that could otherwise cause line stoppage or hinder sewage disposal. The design of grease interceptors shall be based on standards found in (a) below. In addition, the following general requirements found in (b), (c), and (d), apply when determining the proper use and installation of a grease interceptor used as a component of an onsite sewage treatment and disposal system.

(a) The inlet invert shall discharge a minimum 2 1/2 inches above the liquid level line and the outlet pipe shall have a tee with a minimum diameter of 4 inches that extends to within 8 inches of the bottom of the tank.

(b) Interceptors must be located so as to provide easy access for routine inspection, cleaning and maintenance. Manholes shall be provided over the inlet and outlet of each interceptor and be brought to finished grade.

(c) Where a grease interceptor is required or used, only kitchen wastewater shall first pass through the interceptor and then be discharged into the first compartment of a septic tank or other approved system.

(d) Sizing of grease interceptors shall be based on the equations below. The minimum volume of any grease interceptor shall be 750 gallons and the maximum volume of an individual single grease interceptor chamber shall be 1250 gallons. When the required effective capacity of the grease interceptor is greater than 1250 gallons, installation of multi-chambered grease interceptors or grease interceptors in series is required.

1. Restaurants:  $(S) \times (GS) \times (HR/12) \times (LF)$  = effective capacity of grease interceptor in gallons.

S = number of seats in the dining area.

GS = gallons of wastewater per seat; use 25 gallons for ordinary restaurant, use 10 gallons for single service article restaurants.

HR = number of hours establishment is open.

LF = loading factor: use 2.0 interstate highways, 1.5 other freeways, 1.25 recreational areas,

1.0 main highways, and 0.75 other roads.

2. Other type establishments with commercial kitchens:  $(M) \times (GM) \times (LF)$  = effective capacity of grease interceptor in gallons.

M = meals prepared per day.

GM = gallons of wastewater per meal: use 5 gallons.

LF = loading factor: use 1.00 with dishwashing and 0.75 without dishwashing.

(9) Laundry waste interceptor – when a separate system is installed to accept effluent from a single home washing machine only, the retention tank or interceptor for such system shall meet the following minimum standards:

(a) The minimum effective capacity shall be 225 gallons.

(b) The interceptor shall be provided with a vented inlet tee, vented sweep, or a baffle.

(c) The interceptor shall not receive waste flow from kitchen fixtures or be used as a grease trap.

(10) Pump tanks and pumps – when used as part of an onsite sewage treatment and disposal system, the following requirements shall apply to all pump tanks manufactured for use in Florida unless specifically exempted by other provisions of these rules:

(a) Pump tanks shall have a minimum effective capacity measured from the bottom of the tank to the top of the tank in accordance with Table II. At least 80% of the required effective capacity shall be contained below the invert of the inlet. Pump levels shall be set as low as practical to preserve as much reserve capacity as possible in the event of pump failure.

(b) Construction standards for pump tanks shall be the same as for treatment receptacles, except that single compartment tanks are allowed.

(c) When a pump is used as part of a system, the following conditions shall apply.

1. Pumps used to distribute sewage effluent must be certified by the manufacturer to be suitable for such purpose. The use of a timer as a part of any pump system shall not be allowed unless it is part of a design submitted by an engineer, or master septic tank contractor, and is approved by the department.

2. An audio and visual high water alarm shall be provided in a conspicuous location visible by system users to warn of pump failures. If the alarm is located outdoors, the alarm shall be waterproof and specified by the manufacturer for outdoor use.

3. A pump shall be placed in a separate compartment or tank, except when using a pump chamber insert. Except as noted below, any compartment or tank in which a pump is located shall not be considered when determining total effective capacity of a septic tank.

4. A pump chamber insert may, at the applicant's discretion, be used to house a pump inside a septic tank. If a pump chamber insert is used, it must be approved for use by the State Health Office. Approval shall be based on the ability of the pump chamber insert to effectively filter solids from the effluent prior to intake by the pump. The efficiency of solids removal by the pump chamber insert must be at least equal to a currently approved outlet filter device. Pump chamber inserts that do not meet this criteria shall not be approved and shall not be used. The filter device used as part of the pump chamber insert shall be considered to meet the requirement of using an outlet filter device for purposes of subsection 64E-6.008(2), F.A.C. The tank or compartment used to house the pump chamber insert shall be included in calculating the minimum effective capacity of the tank, subject to the following conditions:

a. When placed in a compartmentalized tank or tanks in series, the pump chamber insert shall be placed in the last chamber or tank. When placed in a single compartment tank, the pump chamber insert shall be placed as close to the outlet side of the tank as possible. In no case shall the insert be placed farther than 1/2 the distance to the inlet as measured from the outlet of the tank. The pump chamber insert and filter shall be accessible for routine maintenance. The manufacturer shall provide instructions on how to maintain the filter unit and the insert device.

b. Pump levels shall be set so that the high water alarm is activated when the liquid level of the tank will exceed the height of the inlet invert of the tank. The pump-on switch shall be set to maintain the greatest possible effective capacity of the tank, and in no case shall it be set higher than 1 inch below the inlet invert. Floats used for operation of the pump shall be allowed outside the pump chamber insert.

c. The intake openings of the pump chamber insert shall not be located within 12 inches of the bottom of the tank, or within 12 inches of the liquid level line of the tank.

d. The volume discharged by the pump shall not exceed 1/4 of the average daily sewage flow in any dose.

e. A pump chamber insert shall not be used when the total absorption area for the system is greater than 1000 square feet, or when automatic dosing is required.

f. For new system installations, in addition to the requirements above, the total septic tank capacity shall include the required minimum septic tank effective capacity, which shall be contained below the pump-off switch level, plus the pumping tank capacity per Table II, plus the required 15% airspace.

g. For repair installations, in addition to the requirements of a. through e. above, pump chamber inserts shall not be used in an existing septic tank of less than 750 gallons effective capacity. In addition, the minimum tank liquid depth shall be 36 inches below the pump-off switch level and the minimum effective capacity contained below the pump-off switch level shall be within two tank sizes of that required in Rule 64E-6.008, F.A.C., Table II. The total septic tank capacity shall include the minimum effective capacity within two tank sizes of required tank size, plus dosing capacity, plus dosing reserve capacity equal to the dosing capacity, plus freeboard or air space capacity which is equal to 15% of the minimum effective capacity.

(11) Transportation and installation.

(a) Onsite wastewater receptacles shall not be removed from the manufacturer's facility until the compressive strength of the concrete has reached 75% of the design strength. Use of concrete industry published graphs or tables indicating compressive strength vs. concrete age for the design mix are satisfactory proof of strength.

(b) Tanks shall be installed level from end to end and side to side. As used in this context, level includes a slope from the inlet end to the outlet end or from side to side of the tank not exceeding one-half inch over the entire length or width of the tank. The tank shall not be approved with any pitch upward from the inlet end to the outlet end of the tank.

(c) If a pumping device has been placed in the building sewer, an inlet device shall be used.

(d) Cast in place tanks or tanks manufactured with water stops below the invert of the outlet, and tanks with seams below the invert of the outlet shall be watertightness tested in accordance with ASTM C 1227-98, Standard Specification for Precast Concrete Septic Tanks, paragraph 9.2.2, after installation in the field.

(12) Repair of receptacles – Repairs shall be allowed for receptacles prior to shipment per ASTM, ACI, PCA and National Precast Concrete Association (NPCA), Septic Tank Manufacturing Best Practices Manual (1998), standards and publications. Tanks damaged after they leave the manufacturer's facility may be repaired for the following defects:

(a) Chips and cracks that occur above the invert of the outlet.

(b) Chips that occur below the invert of the outlet, provided that such chips to not penetrate more than 1/3 of the wall or bottom thickness.

(13) Effective dates – Except as noted herein, all provisions of this section are effective immediately.

(a) Tanks that have been approved prior to the effective date of this rule must comply with paragraphs 64E-6.013(2)(f) and (i) and 64E-6.013(6)(h), F.A.C., as of August 1, 2000, and must be reapproved for use in compliance with this entire section no later than March 22, 2002.

(b) Tank designs that have not been reapproved as of March 22, 2002, shall not be used as part of an onsite sewage treatment and disposal system.

(14) All materials incorporated by reference in this section of rule may be obtained by contacting the department.

*Specific Authority 381.0011(4), (13), 381.006, 381.0065(3)(a), 489.553 FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, 386.041, 489.553 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.55, Amended 3-17-92, 1-3-95, Formerly 10D-6.055, Amended 11-19-97, 2-3-98, 3-22-00, 4-21-02.*

#### **64E-6.014 Construction Standards for Drainfield Systems.**

(1) Distribution box – where distribution boxes are used for distributing sewage from the septic tank or other waste receptacle to the drainfield lines, the following requirements shall be adhered to:

(a) Distribution boxes shall be watertight, constructed of durable materials, have adequate structural strength, and be of sufficient size to accommodate the required number of drain pipe lines.

(b) Each drainfield line shall be connected individually to the box.

(c) The invert of inlets to the box shall be at least 1 inch above the invert of the outlets. The invert of all outlets shall be level with respect to each other.

(d) The distribution box shall be built as an integral part of the septic tank or shall be a separate unit set on solid ground and anchored in the drainfield.

(2) Header pipe – header pipe, when used, shall be installed in compliance with the following requirements:

(a) Header pipe shall meet one or more of the following requirements:

1. ASTM D 3034-98, Standard Specification for Type PSM Poly (Vinyl Chloride)(PVC) Sewer Pipe and Fittings (1998), herein incorporated by reference.

2. ASTM D 2729-96 Standard Specification for Poly (Vinyl Chloride)(PVC) Sewer Pipe and Fittings (1996), herein incorporated by reference.

3. AASHTO M252M-96 Standard Specification for Corrugated Polyethylene Drainage Pipe (1996), herein incorporated by reference. Materials used to produce this pipe shall meet ASTM D 3350-98a, Standard Specification for Polyethylene Plastics Pipe and Fittings Materials (1998), Cell Classification 324420C, herein incorporated by reference.

4. ASTM F 405-97, Standard Specification for Corrugated Polyethylene (PE) Pipe and Fittings (1997), herein incorporated by reference. Materials used to produce this pipe shall meet ASTM D 3350-98a, Standard Specification for Polyethylene Plastics Pipe and Fittings Materials (1998), Cell Classification 324420C or E, herein incorporated by reference.

5. ASTM F 810-99, Standard Specification for Smoothwall Polyethylene (PE) Pipe for Use in Drainage and Waste Disposal Absorption Fields (1999), herein incorporated by reference. Materials used to produce this pipe shall meet ASTM D 3350-98a (1998), Standard Specification for Polyethylene Plastics Pipe and Fittings Materials, Cell Classification 32442C or E, herein incorporated by reference.

(b) Corrugated or smooth wall fittings (elbows, tees and crosses) shall be acceptable for gravity flow headers. Header pipe interior shall be smooth. Header pipe shall have a minimum inside diameter of 4 inches for gravity flow applications. Header pipe shall not be perforated.

(c) The header pipe shall be laid level with direct, connections to each drainfield line and the septic tank outlet pipe. When installed in a drainfield which uses mineral aggregate, the header pipe shall be encased in mineral aggregate, and shall be included as part of the drainfield area. Gravity flow header pipes, when installed within the mineral aggregate drainfield, may be non-watertight but shall be soil tight. Snap connections are acceptable. On non-mineral aggregate systems, header pipe must be supported by soil. All connections shall be such that all joints or fittings are firmly connected to pipes. When a drainfield system is a pumped system, the header pipe and fittings shall be smooth-walled and watertight. Where the header pipe is not within the absorption surface area it shall not be included in drainfield size calculations, but shall be considered part of the system. The header pipe shall be designed to distribute effluent as equally as practical to each individual drainline and shall be supported so that the header is laid level.

(d) Pipe which connects the septic tank outlet to the header pipe or a distribution box shall comply with the strength and material standards for header pipe as specified in this subsection.

(3) Automatic dosing – where the total required area of drainfield is greater than 1000 square feet, an automatic dosing device discharging into a low pressure distribution network designed by a registered engineer shall be used. Plans and equipment specifications for automatic dosing systems shall be approved by the department prior to construction or installation.

(a) Dosing systems with 2000 square feet of drainfield or less shall consist of a pump tank that receives the flow from a septic tank or other sewage waste receptacle. Two pumps shall be required for commercial use where dosing is required due to drainfield size or where gravity flow into the drainfield is not possible, and estimated establishment sewage flows exceed 500 gallons per day. Where more than one pump is used, the pumps shall dose alternately. Where dosing is required for a commercial system for flows of 500 gallons or less per day, only one pump shall be required if the drainfield does not exceed 2000 square feet.

(b) Systems having more than 2000 square feet of drainfield shall have a minimum of two dosing pumps, with each pump serving a proportionate amount of the total required absorption area. The pumps shall dose alternately.

(c) The volume dosed between the pump operating levels shall be adequate to assure that the entire drain pipe is dosed each cycle, or as stipulated by the design engineer.

(d) When a drainfield is installed in slightly limited soil, operating levels shall be adjusted to dose the drainfield a maximum of six times in a 24 hour period. For moderately limited soils the drainfield shall be dosed no more than two times in a 24 hour period. More frequent dosing may be allowed with systems designed by engineers registered in the state of Florida.

(4) Lift dosing – Where a septic tank or sewage waste receptacle is placed too low to permit gravity flow into a properly designed, constructed and located drainfield, a pump tank with a pump or similar type device shall be used to lift the effluent to a properly constructed header pipe or distribution box for effluent distribution by gravity to the drainfield. This provision shall apply only to drainfields of 1000 square feet or less of total area. Tank size and pumps with effluent level controls and alarms shall be set in accordance with the requirements set forth in subsection 64E-6.013(10), F.A.C.

(5) Drain trenches and absorption beds – drain trenches and absorption beds are the standard subsurface drainfield systems used for disposing of effluent from septic tanks or other sewage waste receptacles. When used, these systems shall be constructed as specified below.

(a) When utilizing the standard drain trench method, the width of the trench at the bottom shall not exceed 36 inches. For trenches of 12 inches or less, there shall be a minimum separation distance of 12 inches between the sidewalls of adjacent trenches; trenches greater than 12 inches require a minimum 24 inch separation between the sidewalls of adjacent trenches.

(b) The trench method shall be the preferred method. Absorption beds may be used in lieu of the standard drain trench method. An absorption bed consists of an area in which the entire earth content of the required absorption area is removed and replaced with aggregate and distribution pipe or other approved alternative drainfield components. The distance between the centers of distribution lines in standard beds shall be a maximum of 36 inches. The distance between the sidewall of the bed and the center of the outside drain line shall be no more than 18 inches, but shall not be less than six inches. Where header pipe is used in lieu of a distribution box, the header shall extend to within 18 inches of the bed sidewalls. In no case shall the bottom surface of an absorption bed exceed a total of 1500 square feet. Where two or more beds are used to obtain the necessary absorption area, there shall be a minimum 10 foot separation between the sidewalls of adjacent absorption beds. Absorption beds shall be designed to achieve the maximum length to width ratio practical.

(c) When installing a drainfield system that uses mineral aggregate, all portions of the header pipe and perforated drain pipe shall be installed in aggregate conforming to ASTM C33-86 or lightweight aggregate conforming to ASTM C330-87 meeting State of Florida Department of Transportation (FDOT) specifications under Section 901, "Standard Specifications for Road and Bridge Construction, 1991" and the following gradation requirements.

Sieve size	2 IN.	1 1/2 IN.	1 IN.	3/4 IN.	1/2 IN.	3/8 IN.	No. 4
Percent passing	90-100	35-100	15-100	0-70	0-50	0-30	0-5

In addition, not more than 3.75% by weight of the aggregate material at the point of use shall pass a #200 sieve.

1. Approved materials for drainfield mineral aggregate shall be limestone, slag, quartz rock, granite, river gravel, recycled crushed concrete, lightweight aggregate and other equally durable materials.

2. The aggregate shall be labeled as drainfield aggregate on the freight bill-of-lading. Effective March 1, 1995, a copy of the freight bill-of-lading shall be part of the documentation of aggregate size and quality and records shall be available for department review for a period of two years from the date of purchase. This bill-of-lading shall clearly certify that the material meets the requirements for drainfield use.

(d) Mineral aggregate material shall have a total depth of at least 12 inches extending throughout the width of the trench or absorption bed. The distribution pipe shall have a minimum of six inches of aggregate under the pipe, but shall not exceed 10 inches under the pipe when the total depth of aggregate is 12 inches.

(e) The drainfield in place shall be protected from infiltration of earth backfill by a barrier of polyester bonded filament. The barrier shall be placed on top of the drainfield only. For alternative drainfield systems any required earth backfill barrier shall be as specified by the alternative system manufacturer, which must be approved by the department at the time of the initial alternative drainfield approval.

(f) Providing the requirements of subsections 64E-6.006(1), (2) and (6), F.A.C., are met, the maximum depth from the bottom of the drainfield to the finished ground surface shall not exceed 30 inches after natural settling. The minimum earth cover over the top of the drainfield, distribution box or header pipe in standard subsurface drainfields shall be 6 inches after natural settling.

(g) The inside diameter of the drain pipe used in drainfields shall be determined based on the type and design of the proposed absorption system. However, for standard gravity aggregate drainfield systems, inside pipe diameter shall not be less than 4 inches. Perforated pipe shall have two rows of holes, and a minimum perforated area of 1 1/2 square inches per linear foot. Perforations shall be located not less than 30° or more than 60° from the vertical on either side of the center line of the bottom of the pipe. However, for drainfield systems designed by an engineer, drainpipe perforation area and hole configuration shall assure that effluent is distributed as equally as possible throughout the drainfield area. All plastic pipe shall conform to the standards of ASTM D 3034-98, Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings (1998), herein incorporated by reference, ASTM F 405-97, Standard Specification for Corrugated Polyethylene (PE) Pipe and Fittings (1977), herein incorporated by reference, or ASTM F 810-99 (1999), herein incorporated by reference.

(h) Depending on the type of drainfield system being utilized, the drainfield absorption surface shall be constructed level or with a downward slope not exceeding one inch per 10 feet. Drain lines shall be placed at the same slope as the drainfield absorption surface.

(i) The maximum length of drain lines shall not exceed 100 feet and where two or more drain lines are used, they shall be, as near as practical, the same length. The ends of two or more drain lines in bed and mound systems shall be connected to produce a continuous circuit. A continuous circuit arrangement is also recommended but not required for standard drain trench systems. However, when a continuous circuit arrangement is not used, the distal ends of the drain lines shall be capped or sealed.

(j) No part of a drainfield shall be placed within 18 inches of the treatment or pump tank.

(k) If lots are encountered whereby a standard drainfield system cannot meet drainfield slope or soil cover requirements, a drop box configuration for sloping lots as per Section 7.2.8.1, Chapter 7, EPA 625/1-80-012, Design Manual for Onsite Wastewater Treatment and Disposal Systems, such section hereby incorporated by reference, may be used at the installer's discretion for drainfield construction.

(6) All materials incorporated by reference in this section of rule may be obtained by contacting the department.

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, 386.041 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.56, Amended 3-17-92, 1-3-95, Formerly 10D-6.056, Amended 2-3-98, 3-22-00.*

#### **64E-6.015 Permitting and Construction of Repairs.**

All repairs made to a failing onsite sewage treatment and disposal system shall be made only with prior knowledge and written approval from the DOH county health department having jurisdiction over the system. Approval shall be granted only if all of the following conditions are met:

(1) Any property owner or lessee who has an onsite sewage treatment and disposal system which is improperly constructed or maintained, or which fails to function in a safe or sanitary manner shall request from the DOH county health department, either directly or through their agent, a permit to repair the system prior to initiating repair of the system. A permit shall be issued on Form DH 4016, 10/96, hereby incorporated by reference, only after the submission of an application accompanied by the necessary exhibits and fees. Form DH 4015, 10/96, hereby incorporated by reference, shall be used for this purpose, and can be obtained from the department. Applications shall contain the following information:

(a) A site plan showing property dimensions, the existing and proposed system configuration and location on the property, the building location, potable and non-potable water lines, within the existing and proposed drainfield repair area, the general slope of the property, property lines and easements, any obstructed areas, any private or public wells, or any surface water bodies and stormwater systems in proximity to the onsite sewage system which restricts replacement or relocation of the drainfield system. The existing drainfield type shall be described. For example, mineral aggregate, non-mineral aggregate, chambers, or other.

(b) The size of the septic tank or other treatment tank currently in use and the approximate square footage and elevation of the drainfield existing on the site.

(c) The quantity and type of waste being discharged to the system. Where water use records cannot be obtained, estimates shall be made from values found in Rule 64E-6.008, Table I, F.A.C.

(d) The soil textures encountered within the existing and proposed drainfield areas, and the estimated water table during the wettest season of the year.

(e) Any unusual site conditions which may influence the system design or function such as sloping property, drainage structures such as roof drains or curtain drains, and any obstructions such as patios, decks, swimming pools or parking areas.

(f) The person performing the site evaluation shall provide a brief description of the nature of the failure which is occurring.

(2) Site evaluations necessary to obtain the above referenced information shall be conducted at the expense of the owner or lessee by department personnel, by an engineer who is registered in the State of Florida or by other qualified persons as per subsection 64E-6.044(3), F.A.C. Site specific information may be obtained by the applicant through examination of department records of permits previously issued for the site.

(3) When a repair is to be performed on a failing system in which the contractor will be using any method other than drainfield addition or replacement, the following additional permit application information shall be submitted to the county health department by the contractor. This is in addition to the information required in subsections 64E-6.015(1) and (2), F.A.C.

(a) The process used to repair the system. For example, hydrogen peroxide treatment or high-pressure injection of air alongside the drainfield. Such information shall include the manner in which the proposed repair will take place. The manufacturers recommended method for product use, quantities and concentration of product, shall be included in this information.

(b) Any chemical compound to be introduced into the system in an effort to repair the system shall be identified by chemical composition or trade name, including the concentration and quality of product used. The method of product introduction shall be stated. For example, product introduced through the distribution box.

(c) Any repair method proposed which intends to physically disrupt the absorption surface shall include a drawing of the drainfield system that includes a diagram of the sites where the absorption surface will be disrupted. The depth of each disruption shall be recorded at each site.

(4) Where the absorption surface of the drainfield is within 6 inches of the wet season high water table, an alternative repair method addressed in subsection 64E-6.015(3), F.A.C., shall not be used. The existing drainfield shall be removed and a replacement drainfield shall be installed in accordance with all other repair criteria, including separation from seasonal high water table and drainfield sizing. paragraph 64E-6.015(6)(f), F.A.C., shall be used to determine septic tank conformance.

(5) The department shall make every effort to issue a permit within 2 working days after receiving the application for system repair. Repair permits shall be valid for 90 days from the date of issuance. However, if the system is maintained to not create a sanitary nuisance, a repair permit shall be extended for one 90 day period.



(6) Construction materials used in system repairs shall be of the same quality as those required for new system construction. Aggregate and soil in spoil material from drainfield repairs shall not be used in system repair in any manner. Undamaged infiltration units, pipes and mechanical components may be reused on the original site. Any spoil material taken off site shall be disposed of in a permitted landfill or shall be limed and stockpiled for at least 30 days to prevent a sanitary nuisance. Offsite spoil material stockpile areas shall meet the prohibition requirements of subsection 62-701.300(2), F.A.C. The resulting lime-treated material shall not be used for drainfield repair, or construction of any onsite sewage treatment and disposal system. Any use of the lime treated material shall not cause a violation of Chapter 386 F.S., and shall not impair groundwater or surface water. Mineral aggregate and soil in spoil material may, at the option of the septic tank contractor and the property owner, be buried on site if limed before burial. Lime amount must be sufficient to preclude a sanitary nuisance. Depth of seasonal high water table to the spoil material must be at least six inches. Setbacks for buried spoil material shall be the same as for onsite sewage treatment and disposal system drainfields. A minimum of six inches of slightly or moderately limited soil shall cover the spoil material and shall extend to at least five feet around the perimeter of the burial site. Any failing system shall, at a minimum, be repaired in accordance with the following criteria:

(a) System repairs shall comply with minimum setbacks and separations as specified in Rule 64E-6.005, F.A.C. If current required setbacks and separations cannot be met, lesser setbacks as specified in Table V shall be maintained. For repairs only, if current required setbacks given below cannot be attained, absolute minimum setbacks shall be met. When site conditions exist which allow either absolute or current required setbacks to various features, current required setbacks shall be maintained from features with the highest protection factor. Setbacks to features with lower protection factors shall be reduced to the maximum setback or separation attainable, with no less than the absolute minimum setback allowed. A standard gravity flow system is to be used when possible to achieve the appropriate separations of absorption surface to seasonal high water and effective soil depth.

TABLE V

Permit Date of Original System	Description of Setback (Separation)	Repair System Setback Requirements		
		Protection Factor	Current Required Setback	Absolute Minimum Setback
Prior to 1-1-72	System to a Private Potable Well	6	75 feet	Greatest of the Following: a) Maximum Setback (<75 feet and >50 feet) b) Original Setback (if >50 feet) c) 50 feet
	Bottom of Drainfield Absorption Surface to Wet Season Water Table	5	24 inches	Greatest of the Following: a) Maximum Separation (>6 inches) b) Original Separation (if >6 inches) c) 6 inches
	Effective Soil Depth	5	42 inches	Greatest of the Following: a) 24 inches b) Maximum Separation (>12 inches) c) 12 inches

1-1-72 to 12-31-82	System to Surface Water	4	50 feet	Greatest of the Following: a) Maximum Setback (>25 feet and <50 feet) b) Original Setback (if >25 feet) c) 25 feet
	System to Non-Potable Well	3	50 feet	Greatest of the Following: a) Maximum Setback (>25 feet and <50 feet) b) Original Setback (if >25 feet) c) 25 feet
	Drainfield Sidewall to Start of Slope	2	5 feet	Greatest of the Following: a) Maximum Separation (>2.5 feet) b) 2.5 feet
	System to Property Line or Building Foundation	1	5 feet	Greatest of the Following: a) Maximum Setback (>2 feet) b) 2 feet
	System to a Private Potable Well	6	75 feet	Greatest of the Following: a) Maximum Setback (<75 feet and >50 feet) b) Original Setback (if >50 feet) c) 50 feet
	Bottom of Drainfield Absorption Surface to Wet Season Water Table	5	24 inches	Greatest of the Following: a) Maximum Separation (<24 inches and >6 inches) b) Original Separation (if >6 inches)

c) 6 inches

Effective Soil Depth	5	42 inches	Greatest of the Following: a) 36 inches b) Maximum Separation (> 24 inches) c) 24 inches
System to Surface Water	4	75 feet	Greatest of the Following: a) Maximum Setback (<75 feet and >50 feet) b) Original Setback (if >50 feet) c) 50 feet
System to Non-Potable Well	3	50 feet	Greatest of the Following: a) Maximum Setback (<50 feet and >25 feet) b) Original Setback (if >25 feet) c) 25 feet
Drainfield Sidewall to Start of Slope	2	5 feet	Greatest of the Following: a) Maximum Separation (>3 feet) b) 3 feet
System to Property Line or Building Foundation	1	5 feet	Greatest of the Following: a) Maximum Setback (>2 feet) b) 2 feet
System to a Private Potable Well	6	75 feet	75 feet
Bottom of Drainfield Absorption Surface to Wet Season Water Table	5	24 inches	Greatest of the Following: a) Existing elevation (>12 inches) b) 12 inches

1-1-83 to Present

Effective Soil Depth	5	42 inches	Greatest of the Following: a) Maximum Separation (>36 inches) b) 36 inches
System to Surface Water	4	75 feet	Greatest of the Following: a) Maximum Setback (if >50 feet) b) 50 feet
System to Non-Potable Well	3	50 feet	50 feet
Drainfield Sidewall to Start of Slope	2	5 feet	5 feet
System to Property Line or Building Foundation	1	5 feet	Greatest of the Following: a) Maximum Setback (if >2 feet) b) 2 feet

Footnotes to Table V:

1. For sites which contain oolitic limestone, the minimum effective soil depth shall be 12 inches regardless of the date the original system was installed provided that the wet season water table is a minimum of 4 feet below the bottom surface of the drainfield.

2. Where severely limited soil underlies the drainfield, soil removal and replacement shall be performed as per Footnote 3. to Table III.

(b) For systems permitted on or after January 1, 1983, if system failure is due to excessive hydraulic loading, the original permitted drainfield shall be allowed to remain in service but shall have additional drainfield added to it. The resulting system drainfield size shall be 50 percent larger than the drainfield originally permitted, or shall be in compliance with drainfield sizing criteria specified in Rules 64E-6.008 and 64E-6.009, F.A.C., whichever is larger.

(c) Minimum sizing of drainfield repairs for residential systems installed prior to 1983 shall be based on the criteria specified below. Failed drainfields shall be replaced with drainfields meeting, at a minimum, the sizing criteria specified below.

1. If sufficient area is available, the existing drainfield can be left in place and used as part of the system. A new drainfield equal in size to, and separate from, the existing drainfield shall be added and flow directed to both the old and new drainfield.

2. Table VI and VII values are for subsurface and filled systems if the existing drainfield cannot be used as part of the repair. Mound trench systems shall be sized 10 percent larger than the values below and 20 percent larger if absorption beds are installed in the mound. The amount of drainfield installed during the repair shall not be less than the amount the system had prior to the repair.

TABLE VI Residential Sizing for Slightly Limited Soil Textures		
Number of Bedrooms	Square Feet of Trench Area	Square Feet of Absorption Bed
1	75	100
2	150	200
3	225	300
4	300	400
Add per bedroom	75	100

TABLE VII Residential Sizing for Moderately-limited Soil Textures		
Number of Bedrooms	Square Feet of Trench Area	Square Feet of Absorption Bed
1	100	125
2	200	250
3	300	375
4	400	500
Add per bedroom	100	125

(d) Repairs of commercial systems installed prior to 1983 shall be based on the following criteria:

1. Sewage flows shall be determined from values found in Table I of Rule 64E-6.008, F.A.C., or on the highest monthly flow for the previous 18 month period from documented water use records, whichever is higher.

2. Failed drainfields shall at a minimum, meet the sizing criteria specified below.

a. If sufficient room is available, the existing drainfield can be left in place and used as part of the system. A new drainfield equal in size to, and separate from, the existing failed drainfield shall be added.

b. Sewage loading rates to trench or absorption bed bottom areas shall be in accordance with the values in Table VIII which are applicable to subsurface and filled drainfield systems if the existing drainfield is replaced with a new drainfield. Mound trench systems shall be sized 10 percent larger than the values below and 20 percent larger if absorption beds are installed in the mound.

TABLE VIII  
Drainfield Sizing for Commercial Systems Installed  
Prior to 1983  
in gallons/square foot/day

	Trenches	Absorption Beds
Slightly limited textures	1.00	0.80
Moderately limited textures	0.65	0.50

(e) Where the cause of system failure is determined to be from root clogging of the distribution box or drainfield line of a system, and where removal of the root mass and replacement of damaged drainfield material will restore the system to its original design function, upon inspection and verification of the repair work by the health unit, permit satisfaction will be considered to be achieved.

(f) A tank need not be replaced as part of the repair if the health unit determines the tank to be structurally sound, constructed of approved materials, and if such tank has an effective capacity within two tank sizes of the capacities required by Table II. In addition, the tank shall be pumped and a solids deflection device shall be installed as a part of the outlet of the tank if one is not currently in place.

(g) Repairs to a system shall not be located within 2 feet of a sleeved and sealed potable water line or 2 feet from non-potable water lines.

(h) If the total drainfield area exceeds 1000 square feet, or if the tank is too low to permit gravity flow into the drainfield, the drainfield shall be dosed. The requirements of subsection 64E-6.014(3), F.A.C., shall be used for dosing requirements.

(i) Setbacks from an existing system to a public well shall not be decreased from existing setbacks, but shall be increased where practical to achieve the required setbacks as per paragraphs 64E-6.005(1)(b) and (c), F.A.C.

(7) If a repair cannot be made utilizing the standards in (6) above, all available area for drainfield repair shall be assessed and the repair permit shall allow for the maximum size drainfield that can be accommodated in the available area while allowing for the system to be installed above the wet season water table. Total removal of the existing drainfield and replacement of the drainfield in its original location shall be authorized if there is no additional area to enlarge the system. Setbacks to wells, surface water bodies, and other pertinent features which are less than the setbacks in (6) above shall not be reduced below existing setbacks. Nothing in this section shall be construed to allow a drainfield to remain in the wet season water table. The appropriate requirements for bottom of drainfield absorption surface to wet season water table separation in Table V shall be adhered to in all repairs.

(8) If soil replacement is to be performed on any repair, the requirements of Footnote 3., Table III, shall be adhered to.

(9) System repairs shall be performed by persons who are qualified to do so as set forth in Part III of this rule.

(10) Except as provided for in (7) above, the amount of drainfield installed during the repair shall not be less than the amount the system had prior to the repair.

(11) Subsection 64E-6.004(7), F.A.C., shall be used in conjunction with this section when permitting a repair in which the property has been divided after the original permit was issued.

(12) For inspection purposes when a drainfield is repaired using a physical disruption method, such as air injection, the contractor shall mark the location of each injection site in an easily identifiable manner.

(a) The county health department shall inspect repairs to determine that the absorption surface of the repaired drainfield is at least six inches above the wet season high water table, to determine the repair process was completed according to the information provided with the repair permit application and to determine the repair site is free of sanitary nuisance conditions.

(b) The county health department shall keep a separate file for repairs completed using physical disruption methods. These records shall be used to provide periodic follow-up evaluations of a sampling of these systems to determine the general long term effectiveness of this type of repair. The follow-up protocol and evaluation procedure shall be provided by the Bureau of Onsite Sewage Programs.

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, 386.041 FS. History—New 3-17-92, Amended 1-3-95, 2-13-97, Formerly 10D-6.0571, Amended 2-3-98, 3-22-00*

#### **64E-6.0151 Additive Use.**

(1) Any onsite sewage treatment and disposal system additive or drainfield conditioner or restorative product sold or used in the state shall be in compliance with the requirements of Section 381.0065(4)(m), F.S. The following criteria shall be used in determining product compliance.

(a) Use of the product shall not result in violations of Surface Water Quality Rule 62-302.500, F.A.C., or Groundwater Quality Rules 62-520.400 and 62-520.420, F.A.C.

(b) The product's formula itself shall not exceed water quality contaminant concentrations in Rules 62-302.500, 62-520.400 and 62-520.420, F.A.C.

(c) The product shall contain no substance in concentrations or amounts that would interfere with or prevent the successful operation of an onsite sewage treatment and disposal system.

(2) If the Department determines an onsite sewage treatment and disposal system additive or drainfield conditioner or restorative product is not in compliance with the criteria in Rule 64E-6.0151, F.A.C., the Department shall notify the product manufacturer of the items in non-compliance. The product shall be allowed to be continued for sale and use in Florida for a maximum of 90 days from date of receipt of notification of violation. This is to allow the manufacturer an opportunity to exhibit to the department that the product satisfactorily complies with the conditions of Section 381.0065(4)(m), F.S., and this rule. In attempting to demonstrate compliance with Section 381.0065(4)(m), F.S., and this rule, the manufacturer shall provide at a minimum the following information:

(a) A listing of all physical, chemical, biological or other agents which make up the additive, conditioner or restorative and provide toxicity information for each component. This information shall include trade names, chemical names, and concentrations of all individual or complexed components. Any trade secret will be treated according to Section 381.83, F.S.

(b) A list of all known, expected, or possible reactions and by-products resulting from use of the product including the effect on bacteria, all standard contents of the tank, including sludge layer; scum layer; fats, oils and greases, and the effects on currently approved drainfield distribution systems.

(c) Evidence which demonstrates that use of the additive, drainfield conditioner or restorative product will not result in violations of surface water or groundwater standards in Rule 64E-6.0151, F.A.C.

(d) A description of the anticipated use of the product in onsite sewage treatment and disposal systems. Where and how the product is to be applied, any exceptions to application guidelines, the frequency of applications, who is allowed to perform the applications, and the amount and concentration of product per application shall be included in the product description. When the product should not be used shall also be included in the description.

(e) All studies done on the use of the additive, conditioner or restorative product which support or disputes the information required in Rule 64E-6.0151, F.A.C., and which demonstrates the product will not harm public health or the environment and will not impair system components and functioning. Monitoring reports and data from systems in use shall be provided if available.

(f) A signed and dated certification by the manufacturer that states: "I certify under penalty of law that these documents and all attachments, to the best of my knowledge and belief, are true, accurate and complete, and represent all available data for [name of product or products]."

(g) Scientific documentation demonstrating claimed benefits occurring due to the use of the product.

(3) If the department determines that the product does not comply with the provisions of Section 381.0065(4)(m), F.S., the department shall stop the sale of the product or take other actions deemed necessary to preclude the sale and use of the non-compliant product.

*Specific Authority 154.06, 381.0011, 381.006, 381.0065(4)(m), FS. Law Implemented 154.01, 381.001, 381.0011, 381.0012, 381.0025, 381.006, 381.0061, 381.0065(4)(m), 381.00655, 381.0066, 381.0067, 386.041, FS. History—New 3-22-00.*

#### 64E-6.016 U.S. Department of Agriculture Soil Textural Classification System.

(1) Soil texture is a term commonly used to designate the proportionate distribution of different sized mineral particles in a soil material. The three basic sizes of soil mineral particles are the sand size, the silt size and the clay size. The sand size class is subdivided further into the subclasses of very coarse sand, coarse sand, medium sand, fine sand, and very fine sand. Individual particles, based on their size, are grouped into separates. These soil separates are classified by size into the groupings shown below:

Separate	Diameter Limit in Millimeters
Very coarse sand	2.00-1.00
Coarse sand	1.00-.50
Medium sand	.50 -.25
Fine sand	.25-.10
Very fine sand	.10-.05
Silt	.05-.002
Clay	less than .002

(2) Florida's major soil texture classifications and some of the characteristics which can be utilized in the field for identification of these soil texture groups is accomplished primarily by rubbing moist samples of soil material between the fingers and observing how the material feels.

(a) Sand – Sand feels extremely gritty and does not form a ribbon or ball when wet or moist. A sand is loose and single grained. The individual grains can readily be seen or felt.

(b) Loamy sand – Loamy sand feels extremely gritty and forms a weak ball that cannot be handled without breaking.

(c) Sandy loam – A sandy loam feels extremely gritty and slightly sticky. When moist, it forms a cast that will bear careful handling without breaking.

(d) Loam – A loam feels somewhat gritty, yet fairly smooth and slightly plastic. When moist, it forms a cast that may be handled quite freely without breaking. Loam forms only short ribbons about 0.25 inch to 0.50 inches in length. This soil texture is not common in Florida soils.

(e) Silt loam – Silt loam lacks grittiness and feels extremely floury when moist or dry. When dry it may appear cloddy but the lumps can be readily broken. When moist it will form casts that can be freely handled without breaking. It will not form a ribbon but will give a broken appearance. This soil texture is not common in Florida soils.

(f) Silt – Silt lacks grittiness and feels extremely floury when moist or dry. It will not ribbon and forms a weak ball that will tolerate careful handling without breaking. This soil texture is extremely rare in Florida soils.

(g) Sandy clay loam – Sandy clay loam feels very gritty and sticky. When moist it forms a firm ball and may form a ribbon of one to two inches before it breaks.

(h) Clay loam – A clay loam feels very sticky with little or no grittiness. When moist it will form a ribbon that is about one to two inches long. The moist soil is plastic and will form a cast or ball that will bear much handling. When kneaded in the hand it does not crumble readily but tends to work into a heavy compact mass.

(i) Sandy clay – Sandy clay feels extremely sticky and very gritty. When moist and forms a firm ball and produces a ribbon that is over two inches in length before breaking.

(j) Silty clay – Silty clay feels both plastic and extremely sticky when moist and lacks any gritty feeling. It forms a firm ball and readily ribbons to over two inches in length before it breaks. This soil texture is not common in Florida soils.

(k) Clay – A clay feels extremely sticky and is neither gritty nor floury. When moist it forms a ribbon over two inches in length before breaking. It will form a hard ball or cast which will not break when handled.

(l) Organic soils – Muck, peat, and mucky peat are used in place of textural class names in organic soils. Muck is well decomposed organic soil material; peat consists of raw undecomposed organic soil material; and mucky peat designates materials intermediate in decomposition between muck and peat.

(3) Definitions of the soil texture classes according to distribution of size classes of mineral particles less than 2 millimeters in diameter are as follows:

(a) Sands – 85 percent or more sand and the percentage of silt plus 1 1/2 times the percentage of clay is 15 or less.

1. Coarse sand – 25 percent or more very coarse and coarse sand and less than 50 percent any other single grade of sand.

2. Sand – 25 percent or more very coarse, coarse and medium sand, but less than 25 percent very coarse and coarse sand, and less than 50 percent either fine sand or very fine sand.

3. Fine sand – 50 percent or more fine sand; or less than 25 percent very coarse, coarse, and medium sand and less than 50 percent very fine sand.

4. Very fine sand – 50 percent or more very fine sand.

(b) Loamy sands – At the upper limit 85 to 90 percent sand and the percentage of silt plus 1 1/2 times the percentage of clay is 15 or more; at the lower limit 70 to 85 percent sand and the percentage of silt plus twice the percentage of clay is 30 or less.

1. Loamy coarse sand – 25 percent or more very coarse and coarse sand and less than 50 percent any other single grade of sand.

2. Loamy sand – 25 percent or more very coarse, coarse, and medium sand and less than 50 percent either fine sand or very fine sand.
3. Loamy fine sand – 50 percent or more fine sand; or less than 50 percent very fine sand and less than 25 percent very coarse, coarse, and medium sand.
4. Loamy very fine sand – 50 percent or more very fine sand.
- (c) Sandy loams – 20 percent or less clay and 52 percent or more sand and the percentage of silt plus twice the percentage of clay exceeds 30; or less than 7 percent clay, less than 50 percent silt, and between 43 and 52 percent sand.
  1. Coarse sandy loam – 25 percent or more very coarse and coarse sand and less than 50 percent any other single grade of sand.
  2. Sandy loam – 30 percent or more very coarse, coarse, and medium sand, but less than 25 percent very coarse and coarse sand, and less than 30 percent either fine sand or very fine sand.
  3. Fine sandy loam – 30 percent or more fine sand and less than 30 percent very fine sand; or between 15 and 30 percent very coarse, coarse, and medium sand; or more than 40 percent fine and very fine sand, at least half of which is fine sand, and less than 15 percent very coarse, coarse, and medium sand.
  4. Very fine sandy loam – 30 percent or more very fine sand; or more than 40 percent fine and very fine sand, at least half of which is very fine sand, and less than 15 percent very coarse, coarse, and medium sand.
- (d) Loam – 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand.
- (e) Silt loam – 50 percent or more silt and 12 to 27 percent clay; or 50 to 80 percent silt and less than 12 percent clay.
- (f) Silt – 80 percent or more silt and less than 12 percent clay.
- (g) Sandy clay loam – 20 to 35 percent clay, less than 28 percent silt, and 45 percent or more sand.
- (h) Clay loam – 27 to 40 percent clay and 20 to 45 percent sand.
- (i) Silty clay loam – 27 to 40 percent clay and less than 20 percent sand.
- (j) Sandy clay – 35 percent or more clay and 45 percent or more sand.
- (k) Silty clay – 40 percent or more clay and 40 percent or more silt.
- (l) Clay – 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

*Specific Authority 154.06, 381.0011, 381.006, 381.0065, 489.553, 489.557 FS. Law Implemented 154.01, 381.001, 381.0011, 381.0012, 381.0025, 381.006, 381.0061, 381.0065, 381.00655, 381.0066, 381.0067, Part I 386 FS. History–New 12-22-82, Amended 2-5-85, Formerly 10D-6.58, Amended 3-17-92, 1-3-95, Formerly 10D-6.058.*

## PART II

### 64E-6.017 Definitions.

Definitions in Chapter 64E-6, Parts I and III, F.A.C., are also applicable to Chapter 64E-6, Part II, F.A.C.

(1) Building Area – that enclosed area of a dwelling unit, excluding the garage, carport, exterior storage shed, or open or screened patios or decks. Calculations of building area shall be made by measurements of the outside building dimensions. Building area of each additional story of the structure shall be added to determine the total building area.

(2) Cesspit – a pit, with or without a cover, that receives untreated sewage from a building and discharges the sewage, either untreated or improperly treated, directly to the surrounding soil or limestone. A septic tank that functions as a cesspit shall be considered a cesspit.

(3) Injection well – an open vertical hole at least 90 feet in depth, fully cased and grouted to at least 60 feet in depth which is used to dispose of onsite sewage treatment and disposal system effluent.

(4) Minimum level of waste treatment – a treatment which will provide a recovered water product that contains not more, on a permitted annual average basis, than the following concentrations from a sampling point located following the final design treatment step of the onsite sewage treatment and disposal system:

- |  |         |
|--|---------|
| (a) Biochemical Oxygen Demand (CBOD <sub>5</sub> ) | 10 mg/l |
| (b) Suspended Solids                               | 10 mg/l |
| (c) Total Nitrogen, expressed as N                 | 10 mg/l |
| (d) Total Phosphorus, expressed as P               | 1 mg/l  |

(5) Salt Marsh and Buttonwood Associations – two plant associations that are sometimes collectively or individually referred to as the “transitional zone.”

(a) The salt marsh community is a wetland area subject to tidal influence wherein the dominant vegetation includes the following:

1. *Batis maritima* Saltwort;
2. *Distichlis spicata* Salt grass;
3. *Fimbristylis castanea* Chestnut sedge;
4. *Monanthochloe littoralis* Key grass;
5. *Salicornia* spp. Glasswort;
6. *Sesuvium portulacastrum* Sea purslane; and



7. *Spartina spp.* Cordgrass.

The woody vegetation that may be present includes red, white and black mangroves, as well as buttonwood (*Conocarpus erectus*); the salt marsh community is distinguished by the dominance of non-woody plants, and the woody species have a coverage of less than 40 percent. The salt marsh community may be associated and intermixed with areas of almost bare ground on which the vegetation may be limited to mats of algae.

(b) The buttonwood association is an association that is usually present in the more landward zone, and may intermix with more upland communities. The vegetation may include, but is not limited to, the following species:

1. *Borrichia spp.* Sea oxeye daisy;
2. *Bumelia celastrina* Saffron plum;
3. *Coccoloba uvifera* Sea grape;
4. *Conocarpus erectus* Buttonwood;
5. *Erithalis fruticosa* Black torch;
6. *Fimbristylis castanea* Chestnut sedge;
7. *Jacquinia keyensis* Joewood;
8. *Lycium carolinianum* Christmas berry;
9. *Maytenus phyllanthoides* Mayten; and
10. *Spartina spp.* Cordgrass.

The buttonwood association is distinguished from the salt marsh association by the.

(6) Nutrient reducing material – material which is used in the final treatment stage of an onsite sewage treatment and disposal system to reduce effluent nutrient levels to the minimum level of waste treatment.

(7) Undocumented system – an onsite sewage treatment and disposal system that does not have a record of installation and approval.

*Specific Authority 381.0011(4), (13), 381.006, 381.0065(3)(a), (4)(k) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.006(7), 381.0061, 381.0065, 381.00655, 386.041 FS. History—New 7-15-86, Amended 3-17-92, 1-3-95, Formerly 10D-6.062, Amended 3-3-98, 3-22-00.*

**64E-6.018 System Location, Design and Maintenance Criteria.**

Table III of Chapter 64E-6, Part I, F.A.C., and other subsections of Part I pertaining to soil texture, soil depth, and maximum sewage loading rates for specific soils shall not apply to areas subject to the provisions of this Part except for Table III, Footnote 2., as it relates to the falling head percolation test procedure. However, approved system design criteria, system location, operation, maintenance and monitoring requirements of subsections 64E-6.018(1), (2), (3), and (4), F.A.C., shall apply. A minimum of one soil profile and one percolation test per application shall be required for site evaluations performed in the Florida Keys. However, a soil profile and percolation test is not required when the system design engineer chooses the use of an injection well for effluent disposal. All new onsite sewage treatment and disposal systems shall be performance-based treatment systems designed by an engineer registered in the State of Florida and shall meet the minimum level of waste treatment as defined in Rule 64E-6.017, F.A.C. All receptacles subject to a positive buoyancy exposure shall be anchored or otherwise weighted to prevent flotation during flooding periods. The receptacles shall be evaluated for buoyancy while in their normal operating condition.

(1) An onsite sewage treatment and disposal system which meets the location, construction, maintenance and operational requirements of paragraphs 64E-6.018(1)(a) or (b), F.A.C., shall be approved, provided that if an aerobic treatment unit is a component of the system design, the certification, construction, operational and maintenance requirements of Rule 64E-6.012, F.A.C., shall also be met.

(a) When final effluent disposal is into a nutrient reducing material-lined drainfield system, the following general requirements shall apply:

1. The county health department shall require the installer of a nutrient reducing material lined drainfield system to provide certification from the installer's nutrient reducing material supplier that the material supplied for such type of installations meets the requirements of this subsection.

2. No part of the system shall be within 25 feet of the boundaries of surface water bodies or salt marsh and Buttonwood Association habitat areas where the dominant vegetation species are those typical of salt marsh communities.

3. The bottom surface of the nutrient reducing material layer shall be at least 12 inches above mean high water.

4. Appropriate shallow root vegetative cover shall be established over drainfield systems to maximize the beneficial effects of evapotranspiration.

5. Nutrient reducing material has a finite life span. The nutrient reducing material shall be replaced as necessary to ensure that the system continues to meet the minimum level of waste treatment.

(b) An injection well shall be approved for final effluent disposal provided setbacks from salt marsh/buttonwood habitats and other surface water bodies cannot be met by another effluent disposal system noted above, and provided the installation is in compliance with the following:

1. An injection well shall not be permitted or installed under the provisions of this part in any area designated by the United States Environmental Protection Agency or the Florida Department of Environmental Protection as having a single or sole source aquifer. Single source aquifer is defined in subsection 62-520.200(14), F.A.C.

2. In areas where injection wells are approved for use, the DOH Monroe County Health Department shall be the permitting authority for the engineer designed onsite sewage treatment unit and the injection well, where the estimated daily domestic sewage flow will not exceed 2000 gallons per day. For establishments having a total daily sewage flow greater than 2000 gallons per day but not greater than 10,000 gallons per day, the Monroe County Health Department shall be the permitting authority for the engineer designed treatment unit and DEP is the permitting authority for the injection well and any additional associated effluent treatment device.

3. The ground surface within a distance of at least 10 feet in all directions around the injection well and any portion of the onsite sewage treatment and disposal system shall not be subject to surface or ground water flooding. In addition, the invert of the effluent inlet pipe to the injection well shall be a minimum 18 inches above the estimated seasonal high water level.

4. If there is adequate vertical and horizontal clearance to allow for proper maintenance, repair or replacement of the treatment unit and injection well, such components of the onsite sewage treatment and disposal system shall be allowed to be placed beneath an elevated building.

5. Prior to discharge into an injection well, effluent shall be disinfected by chlorination or other disinfection method approved by the State Health Office. A minimum disinfection level equivalent to a free chlorine residual of 0.5 milligrams per liter measured at the point of effluent discharge after a minimum chlorine contact time of 15 minutes into the injection well, shall be maintained in the effluent at all times.

6. An injection well to receive an estimated daily domestic sewage flow not exceeding 2000 gallons per day shall meet minimum construction criteria a., b. and c. of this sub-paragraph. The Monroe County Health Department shall be notified by the well driller the time when the well will be drilled so the county health department can schedule observation of well construction. The DOH Monroe County Health Department shall not approve an injection well for use until the well driller has certified, in writing to the DOH Monroe County Health Department, that the well has been installed in compliance with the provisions of this sub-paragraph. The inspection fee for the construction of an injection well shall be \$125.00.

a. An injection well as defined in subsection 64E-6.017(3), F.A.C., shall be constructed, in part, utilizing a casing of polyvinyl chloride, commonly referred to as PVC. The minimum PVC casing weight and strength classification shall be schedule 40 and the minimum outside diameter of the casing shall be 4 inches. Other casing materials having strength and corrosion resistance properties equal to or greater than PVC schedule 40 pipe shall also be approved.

b. An open hole having a minimum diameter of 6 inches shall extend to a depth of not less than 30 feet below the bottom of the casing.

c. The annular space between the casing and the natural rock wall of the borehole shall be grouted the full length of the casing.

7. A minimum of one maintenance visit every four months shall be made to those systems using injection wells for effluent disposal. The visit shall include an inspection of the chlorination unit and any filter units. When an aerobic treatment unit is a component of the onsite sewage treatment and disposal system, documents and reports required in Rule 64E-6.012, F.A.C., shall also include the results of aerobic treatment unit inspections and shall include information on chlorine residuals to assess compliance with the disinfection requirements of this rule.

8. If an injection well is discontinued for effluent disposal the injection well shall be properly abandoned and plugged by filling the injection well from bottom to top with cement grout.

(2) For an aerobic treatment unit treating domestic sewage flows in excess of 1500 gallons per day but not exceeding 10,000 gallons per day, where effluent from the treatment unit will be discharged to an engineer designed soil absorption drainfield system, the following requirements shall be met:

(a) The soil absorption drainfield system shall be set back from surface water bodies by the greatest distance attainable, but shall meet at least minimum setback and elevation requirements specified in subsection 64E-6.018(1), F.A.C.

(b) The owner or lessee of a system shall comply with the general maintenance and operational requirements of subsections 64E-6.012(2) and (3), F.A.C., and any additional operation and maintenance requirements specified by the system design engineer.

(3) The owner or lessee of a performance-based treatment system shall obtain and maintain a maintenance contract with an approved maintenance entity.

(a) All new onsite sewage treatment and disposal systems shall be inspected by an approved maintenance entity at least two times each year.

(b) A maintenance report shall be kept by the maintenance entity. A copy of all maintenance reports shall be provided to the county health department. The report shall include the following information:

1. The address of the system.

2. Date and time of inspection.

3. Sample collection time and date, and person who collected sample.

4. Results of all sampling.

5. Volume of effluent treated, to include total monthly and daily average.

6. Maintenance performed.

7. Problems noted with the treatment system and actions taken or proposed to overcome them.

(4) In conjunction with the systems specified in subsections 64E-6.018(1) and (2), F.A.C., an applicant may use the alternative systems described in subsections 64E-6.009(1), (3), (4), (5) or (6), F.A.C. An alternative system shall meet the general intent of Part I and Part II of this rule.

**64E-6.0181 Cesspit and Undocumented System Replacement and Interim System Use.**

(1) Where a property is determined to have a cesspit or an undocumented system, the cesspit or undocumented system shall be required to be replaced with an onsite sewage treatment and disposal system complying with Rule 64E-6.018, F.A.C., except as provided for in subsection (2).

(2) In areas that are scheduled to be served by a central sewage facility before July 1, 2010, interim construction standards specified in subsection 64E-6.0181(3), F.A.C., for new, modified, expanded or existing onsite sewage treatment and disposal systems or to replace cesspits or undocumented systems shall be allowed.

(a) Interim system requirements shall be allowed through July 1, 2004, for onsite sewage treatment and disposal systems in areas that are scheduled to be served, according to an adopted local comprehensive plan determined to be in compliance by the Department of Community Affairs, by a central sewage facility before July 1, 2010.

(b) After July 1, 2004, interim system requirements shall be allowed in an area scheduled to be served by a central sewage facility only when all of the following conditions are met:

1. An enforceable contract to provide the central sewage and collection system has been signed;

2. The contract contains a binding schedule for connection of the onsite sewage treatment and disposal systems to the central sewage facility; and

3. There is an enforceable requirement for abandonment of the onsite sewage treatment and disposal systems.

(c) Onsite sewage treatment and disposal systems that are not scheduled to be served in accordance with this section shall provide the level of treatment required in Rule 64E-6.018, F.A.C.

(d) All onsite sewage treatment and disposal systems in operation on July 1, 2010, shall provide the level of treatment required in Rule 64E-6.018, F.A.C.

(3) Interim systems standards shall be:

(a) A Class I aerobic treatment unit which meets the location, construction, maintenance and operational requirements of subparagraph 64E-6.0181(3)(a)1. or 2., F.A.C., and the certification, construction, operational and maintenance requirements of Rule 64E-6.012, F.A.C.

1. Where a Class I aerobic treatment unit is utilized, and where final effluent disposal is into a sand lined drainfield system, the following general requirements shall apply:

a. For a sand-lined drainfield, a minimum 12 inch thick layer of quartz sand shall be placed beneath the bottom of the drainfield absorption surface and a minimum 12 inch wide and minimum 24 inch thick layer of quartz sand shall be placed contiguous to the drainfield sidewall absorption surfaces in order to provide an additional level of effluent treatment prior to effluent passing into the surrounding natural limestone rock. Sand material shall have either an effective grain size in the range of 0.25 millimeter to 1.00 millimeter and shall have a uniformity coefficient of less than 3.5, or the material shall be of such size whereby at least 90 percent of the sand particles pass a U.S. Standard Number 18 sieve and less than 10 percent pass a number 60 sieve. These materials are in the USDA soil texture classes known as medium sand and coarse sand. The county health department shall require the installer of a sand-lined drainfield system to provide certification from the installer's sand supplier that the sand supplied for such type of installation meets the requirements of this subsection.

b. No part of the system shall be within 25 feet of the mean high water line of tidal surface water bodies or within 25 feet of the ordinary high water line of lakes, ponds or other non-tidal surface waters or salt marsh and Buttonwood Association habitat areas where the dominant vegetation species are those typical of salt marsh communities.

c. The bottom surface of the sand layer shall be at least 12 inches above mean high water.

d. The maximum sewage loading rate to an aerobic treatment unit absorption bed drainfield with underlying sand liner shall be 1.1 gallons per square foot per day.

e. Appropriate shallow root vegetative cover shall be established over drainfield systems to maximize the beneficial effects of evapotranspiration.

2. Provided a Class I aerobic treatment unit is utilized and provided effluent from the treatment unit, prior to discharge into an injection well, is passed through a mineral aggregate filter unit as described in subparagraph 64E-6.0181(3)(a)2., F.A.C., or where effluent is passed through a filter unit of another design which has been determined by the State Health Office to be at least equal to the mineral aggregate filter unit with regard to sewage treatment capability, an injection well shall be approved in compliance with the following:

a. An injection well shall not be permitted or installed under the provisions of this part in any area designated by the United States Environmental Protection Agency or the Florida Department of Environmental Protection as having a single or sole source aquifer. Single source aquifer is defined in subsection 62-520.200(14), F.A.C.

b. In areas where injection wells are approved for use, the DOH Monroe County Health Department shall be the permitting agent for the aerobic treatment unit, the filter unit and the injection well, where the estimated daily domestic sewage flow will not exceed 2000 gallons per day. For establishments having a total daily sewage flow greater than 2000 gallons per day but not greater than 10,000 gallons per day, the Monroe County Health Department shall be the permitting authority for the aerobic treatment unit and the filter unit and DEP is the permitting agent for the injection well and any additional associated effluent treatment device. The

effluent from the treatment unit permitted by the DOH Monroe County Health Department shall not exceed 20 mg/l CBOD<sub>5</sub> or 20 mg/l suspended solids on a permitted annual average basis and shall have disinfection in accordance with sub-subparagraph 64E-6.0181(3)(a)2.h., F.A.C., prior to discharge into any injection well.

c. The interior of the aerobic treatment unit, the top surface of the mineral aggregate filter soil cover, and the ground surface within a distance of at least 10 feet in all directions around the injection well, filter unit and aerobic treatment unit shall not be subject to surface or ground water flooding. In addition, the invert of the effluent inlet pipe to the injection well shall be a minimum 18 inches above the estimated seasonal high water level.

d. If there is adequate vertical and horizontal clearance to allow for proper maintenance, repair or replacement of the aerobic treatment unit, filter unit and injection well, such components of the onsite sewage treatment and disposal system shall be allowed to be placed beneath an elevated building.

e. If a mineral aggregate filter as referred to in subparagraph 64E-6.0181(3)(a)2., F.A.C., is utilized, effluent discharge from the aerobic unit shall be by gravity or pressure distribution to a perforated pipe distribution system as specified in Part I, Rule 64E-6.014, F.A.C. Such distribution system shall be placed within the walls of the mineral aggregate filter, shall have at least 4 inches of soil cover and shall be placed above a mineral aggregate filter layer which shall be at least 24 inches thick. Mineral aggregate filter material shall have either an effective size in the range of 2.36 millimeters to 4.75 millimeters and shall have a uniformity coefficient of less than 3.5 or the material shall be equivalent in size to Florida Department of Transportation aggregate classification number eight or nine. The DOH Monroe County Health Department shall require the installer of mineral aggregate filter systems to provide certification from the installer's mineral aggregate supplier that the aggregate supplied meets requirements of this sub-paragraph.

f. The maximum sewage loading rate to the mineral aggregate filter shall be 5.5 gallons per square foot per day based upon the top surface area of the filter layer. The maximum sewage loading rate to an approved filter unit other than a mineral aggregate filter as described in this section shall be evaluated by the State Health Office based on unit design, size, filter media characteristics and expected functional life of the unit.

g. Effluent having passed through a mineral aggregate filter shall collect in an underdrain for gravity or mechanical discharge into an injection well. The underdrain shall consist of minimum 4 inch diameter perforated drainpipe which is encased within a minimum 8 inch depth of 1/2 to 2 inch diameter washed and durable aggregate. The walls and bottom of the filter unit shall be reinforced concrete or other material of adequate strength and durability to withstand hydrostatic and earth stresses to which the unit will be subjected. The walls and bottom of the unit shall be made waterproof so that the total volume of effluent passed through the mineral aggregate filter will be collected in the filter underdrain for discharge into the injection well.

h. Prior to discharge into an injection well, effluent from the filter unit shall be disinfected by chlorination or other disinfection method approved by the State Health Office. A minimum disinfection level equivalent to a free chlorine residual of 0.5 milligram per liter measured at the point of effluent discharge after a minimum chlorine contact time of 15 minutes into the injection well, shall be maintained in the effluent at all times.

i. An injection well to receive an estimated daily domestic sewage flow not exceeding 2000 gallons per day shall meet minimum construction criteria (I), (II) and (III) of this sub-paragraph. The DOH Monroe County Health Department shall not approve an injection well for use until the well driller has certified, in writing to the DOH Monroe County Health Department, that the well has been installed in compliance with the provisions of this sub-paragraph. The inspection fee for the construction of an injection well shall be \$125.00.

(I) An injection well as defined in subsection 64E-6.017(3), F.A.C., shall be constructed, in part, utilizing a casing of polyvinyl chloride, commonly referred to as PVC. The minimum PVC casing weight and strength classification shall be schedule 40 and the minimum outside diameter of the casing shall be 4 inches. Other casing materials having strength and corrosion resistance properties equal to or greater than PVC schedule 40 pipe shall also be approved.

(II) An open hole having a minimum diameter of 6 inches shall extend to a depth of not less than 30 feet below the bottom of the casing.

(III) The annular space between the casing and the natural rock wall of the borehole shall be grouted the full length of the casing.

j. A minimum of one maintenance visit every four months shall be made to those systems using injection wells for effluent disposal. In addition to the standard aerobic treatment unit maintenance visit, the visit shall include an inspection of the chlorination and filter units. Documents and reports required in Rule 64E-6.012, F.A.C., shall also include the results of these inspections and shall include information on chlorine residuals to assess compliance with the disinfection requirements of this rule.

k. If an injection well is discontinued for effluent disposal use such injection well shall be properly abandoned and plugged by filling the injection well from bottom to top with cement grout.

(b) A performance-based treatment system designed and certified by a professional engineer, registered in the state, as producing an effluent meeting at a minimum the treatment standards for a system designed in accordance with paragraph 64E-6.0181(3)(a), F.A.C., and permitted, constructed and monitored in accordance with Part IV.

*Specific Authority 381.0011(4), (13), 381.006, 381.0065(3)(a), (4)(k) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.006(7), 381.0061, 381.0065, 381.00655, 386.01, 386.03, 386.041 FS., 2001-337, LOF. History--New 3-3-98, Amended 3-22-00, 4-21-02.*

#### **64E-6.0182 Coordinated Permitting.**

Chapter 28-20, F.A.C., and the Memorandum Of Understanding (MOU) between Monroe County, the Department of Community Affairs, the Department of Environmental Protection, and the Department of Health, including the Monroe County Health Department, dated July 25, 1997, are herein incorporated by reference, and is available by contacting the department. Chapter 28-20, F.A.C., and the MOU establish a permit allocation system for development and a coordinated permit review process. Chapter 28-20, F.A.C., and the MOU prohibit new system construction permits to serve new residential development that would allow development in excess of the number of permits that Monroe County may issue under its policy.

*Specific Authority 381.0011(4), (13), 381.006, 381.0065(3)(a), (4)(k) FS. Law Implemented 154.01, 381.0011(4), 381.006(7), 381.0065, 381.00655, 386.01, 386.03, 386.041 FS. History—New 3-3-98, Amended 3-22-00.*

### **PART III**

#### **64E-6.019 Requirements for Registration.**

(1) Persons subject to registration – A person shall be subject to the requirements of this rule if he or she contracts or advertises to provide services to the public or holds himself or herself out as being capable of performing services related to any of the following activities in the onsite sewage treatment and disposal industry regulated by the department:

- (a) Installation of onsite sewage treatment and disposal systems,
- (b) Repair of onsite sewage treatment and disposal systems,
- (c) Modification of onsite sewage treatment and disposal systems,
- (d) Maintenance of onsite sewage treatment and disposal systems,
- (e) Septic tank pumping and septage disposal services, excluding companies which only provide portable toilet or temporary holding tank services,
- (f) Abandonment of an onsite sewage treatment and disposal system.

(2) Any person seeking registration shall apply to the department to take the registration examination on Form DH 4075, 1/97, Application for Septic Tank Contractor Registration, incorporated by reference in these rules. The form is available from the department.

(3) A person shall be eligible to take the registration examination if they submit necessary exhibits and fees and meet the requirements of Section 489.553(4), F.S.

(a) Under the supervision and control of a registered septic tank contractor or a plumbing contractor in Section 489.553(4)(d), F.S., is defined as an employment relationship where compensation can be documented by the regular deduction of FICA and withholding tax and the provision of worker's compensation, all as required by law. Principal officers of a corporation or partners of a partnership providing onsite sewage contracting services shall be recognized as being under the supervision and control of the corporation's or partnership's qualifying registered septic tank contractor or plumbing contractor.

(b) Related work experience includes but is not limited to onsite sewage treatment and disposal system design, inspection, installation, regulation, environmental health professional certification, site evaluation, underground utility contracting and wastewater treatment plant maintenance and operation. Related work experience does not include clerical, purchasing or estimating.

(c) Out-of-state work experience on a year for year basis shall be accepted for any applicant who demonstrates that they hold a current statewide license for septic tank contracting which was issued upon satisfactory completion of an equivalent examination and required continuing education courses for renewal. For purposes of this section, an equivalent examination means that at a minimum, the following topics were tested and passed: system location and installation; site evaluation criteria; system size determinations; disposal of septage; construction standards for drainfield systems and U.S. Department of Agriculture soil textural classification system. A person employed by and under the supervision and control of such a licensed contractor shall be granted up to two years of related work experience.

(4) Completed applications for registration must be received by the department's Onsite Sewage Program office at least 21 days prior to examination. In order to be complete, the application must have all appropriate spaces filled, be signed by the applicant, be reviewed by the county health department where the applicant provides service, include a money order or sufficiently funded check in the correct amount and contain all necessary support documentation. Support documentation shall include:

(a) A list of the 25 most recent contracts by the applicant or business organization completed immediately preceding the date of filing.

(b) Signed statements from two persons not related to the applicant for whom the applicant has provided services in the onsite sewage industry, stating what services were provided.

(c) Certification from a registered septic tank contractor or plumbing contractor of the applicant's employment dates and work responsibilities.

(d) Documentation of payment of federal withholding tax and social security and worker's compensation, all as required by law. For corporate officers or partners in the corporation, legal documentation of their position in the corporation or partnership may be substituted for withholding tax, social security and worker's compensation documentation.

(e) Two recent color passport style photographs, not older than 12 months and 1 1/2 × 1 1/2 inches in size.

(5) Eligible applicants must successfully complete an examination administered by the department. Minimum passing score for the examination shall be a 75 percent correct response to all questions comprising the exam.

*Specific Authority 154.06(1), 381.0011(4), (13), 381.006, 381.0065(3)(a), 489.553(2), (3), 489.557 FS. Law Implemented 154.01, 381.001, 381.0011(4), 381.0012, 381.006, 381.0061, 381.0065, Part III 489.552, 489.553 FS. History—New 10-25-88, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.072, Amended 2-3-98, 4-21-02, 6-18-03.*

#### **64E-6.020 Master Septic Tank Contractors.**

(1) A septic tank contractor or a plumbing contractor certified under Section 489.105(3)(m), F.S., who is eligible under Section 489.553(5)(a) and (b), F.S., may apply to the department on Form DH 4105, 10/96, Application for Master Septic Tank Contractor Registration, hereby incorporated by reference, to take the master contractor examination provided by the contractor:

(a) Has been in “active” status for the three years immediately preceding the date of application. This time period may not be interrupted by more than 60 accumulated days as “inactive” or include any registration probation or suspension imposed by the department through administrative action.

(b) Has not been assessed more than \$500 in administrative penalties by the department in the three years immediately preceding the date of application.

(c) Does not have an outstanding fine assessed pursuant to this chapter which is in final order status and judicial reviews are exhausted.

(d) Has successfully resolved any disciplinary action involving septic tank contracting where an administrative action was commenced by the department prior to the filing of the application.

(e) Has not been convicted of, found guilty of, or entered a plea of nolo contendere to, regardless of adjudication, a crime in any jurisdiction which is related to the practice of contracting for the three years immediately preceding the date of application.

(f) Has successfully completed 30 hours of master contractor course work approved by the department. At a minimum, this course work shall include training and testing of soil classification, system design and theory, system material and construction standards, and regulatory requirements.

(2) Completed applications for registration must be received by the department Onsite Sewage Program office at least 21 days prior to examination. In order to be complete, the application must have all appropriate spaces filled, be signed and dated by the applicant, be reviewed by the county health department where the applicant’s primary place of business is located, and include a money order or sufficiently funded check in the correct amount.

(3) Eligible applicants must successfully complete a comprehensive examination administered by the department. Minimum passing score for the examination shall be a 70 percent correct response to the examination questions.

(4) Successful applicants shall be issued a master septic tank contractor certificate after they have paid the registration fee.

(5) Master septic tank contractor certificates shall be renewed only after the contractor has completed 12 classroom hours of approved instruction for each renewal cycle. At least 6 classroom hours must be successfully completed in an approved master contractor course. Instructional time spent by a master septic tank contractor in providing department approved continuing education training shall receive credit as master contractor course hours. Application for renewal shall be made on Form DH 4076, 01/03, Application for Septic Tank Contractor Registration Renewal, herein incorporated by reference, accompanied by the required supporting documentation and fees.

(a) A master septic tank contractor who only completes 6 classroom hours of approved instruction during the renewal cycle shall revert to registered septic tank contractor status and shall apply for renewal under Rule 64E-6.021, F.A.C.

(b) Applications for renewal not submitted in a timely and complete manner shall revert to inactive status. Each application for renewal shall be considered filed in a timely manner if it is postmarked prior to close of business on the date of expiration of the certificate. If that date falls on a weekend or legal holiday, the date of expiration shall be the first working day after the expiration date of the certificate. Application for renewal of an inactive certificate shall be made on Form DH 4076, Application for Septic Tank Contractor Registration Renewal, accompanied by the required supporting documentation and fees.

(c) The department shall deny an application for renewal for an outstanding administrative penalty with the department where the penalty is final agency action and all judicial reviews are exhausted.

(d) Master contractors with “inactive” certificates shall be reinstated to “active” upon completion of the following:

1. Take sufficient continuing education courses and pay registration fees to cover the inactive period, or
2. Retake and pass the comprehensive examination.

(e) Master contractor certificates not renewed within five renewal cycles of the expiration date shall comply with subsections 64E-6.020(1) through (4), F.A.C., to be reinstated as active.

(6) All materials incorporated herein may be obtained by contacting the department.

*Specific Authority 154.06(1), 381.0011(4), (13), 381.006, 381.0065(3)(a), 489.553(2), (3), 489.557 FS. Law Implemented 154.01, 381.001, 381.0011(4), 381.0012, 381.006, 381.0061, 381.0065, Part III 489.552, 489.553 FS. History—New 2-13-97, Formerly 10D-6.0725, Amended 2-3-98, 4-21-02, 6-18-03.*

#### **64E-6.021 Issuance of Registration Certificates and Renewal.**

(1) Certificates of registration shall be renewed only after information has been provided to the department that the contractor has successfully completed 6 classroom hours of department-approved instruction within the previous 12-month period. However, if a registered contractor successfully completes 12 or more classroom hours of approved instruction within a 12-month period, a maximum of 6 unused hours can be rolled over to renew their next year's certificate of registration. Such information shall be accompanied by necessary renewal fees and a completed renewal application on Form DH 4076, Application for Septic Tank Contractor Registration Renewal.

(2) Any registration renewal application which for any reason is not submitted in a timely and complete manner shall revert to inactive status. Each application for renewal shall be considered filed in a timely manner if the application has been postmarked prior to the close of business on the date of expiration of the registration. If that date falls on a weekend or legal holiday, the date of expiration shall be the first working day after the expiration date on the certificate of registration.

(3) A registered contractor may request inactive status. Inactive registrations not renewed in five renewal cycles from the date of inactivation shall be considered null and void. Persons wishing to renew an inactive registration must make application on Form DH 4076 and substantiate six classroom hours of approved instruction for each year the registration was considered inactive. Application must be accompanied by necessary exhibits and renewal fees.

(4) The department shall deny an application for renewal if there is any outstanding administrative penalty with the department where the penalty is final agency action and all judicial reviews are exhausted.

(5) Approval of continuing education courses and course providers will be in accordance with the department Policy on Requirements for Continuing Education Courses and Course Providers, August 2001, herein incorporated by reference.

(6) All materials incorporated herein may be obtained by contacting the department.

*Specific Authority 154.06, 381.0011, 381.006, 381.0065, 489.553, 489.557 FS. Law Implemented 154.01, 381.001, 381.0011, 381.0012, 381.0025, 381.006, 381.0061, 381.0065, 381.0066, 381.0067, 386.041, Part III 489 FS. History--New 10-25-88, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.073, Amended 3-22-00, 4-21-02, 6-18-03.*

#### **64E-6.022 Disciplinary Guidelines.**

(1) The following guidelines shall be used in disciplinary cases, absent aggravating or mitigating circumstances and subject to other provisions of this section.

(a) Providing contracted services without obtaining registration from the department, failure to obtain a certificate of authorization for a firm which provides contracted services, acting under a name not registered or authorized by the department. First violation, letter of warning; repeat violation, \$500 fine, or revocation.

(b) Permit violations.

1. Contractor initiates work to install, modify, or repair a system when no permit has been issued by the department. A permit is issued after construction is started but prior to completion of the contracted work. No inspections are missed. First violation, \$500 fine; repeat violation, \$500 fine and 90 day suspension or revocation.

2. Contracted work is completed without a permit having been issued, or no permit application is received until after contracted work was completed, resulting in missed inspection or inspections. First violation, \$1000 fine; repeat violation, revocation.

(c) Contracting with a delinquent registration. First violation, \$250 fine; repeat violation, \$500 fine or revocation.

(d) Failure to call for required inspections. First violation, \$250 fine; repeat violation, \$500 fine and 90 day suspension or revocation.

(e) False payment statements which are the result of assessing charges to a customer for work not performed. First violation, \$500 fine; repeat violation, \$500 fine and one year suspension or revocation.

(f) Misconduct by failure to reasonably honor warranty. First violation, \$500 fine; repeat violations, \$500 fine and one year suspension or revocation.

(g) Abandoning without good cause, a project in which the contractor is engaged or under contractual obligation to perform. First violation, letter of warning; repeat violation, revocation.

(h) Aiding or abetting evasion of Chapter 489, F.S. First violation, letter of warning; repeat violation, \$500 fine and one year suspension or revocation.

(i) Obtaining registration through fraud or misrepresentation. Revocation and \$500 fine.

(j) Convicted or found guilty of a crime relating to contracting. Use penalty for violation most closely resembling the act underlying the conviction; repeat violation, revocation.

(k) Practicing fraud or deceit, making misleading or untrue representations. First violation, \$500 fine; repeat violation, revocation.

(l) Gross negligence, incompetence, or misconduct which:

1. Causes no monetary or other harm to a customer, or physical harm to any person. First violation, \$500 fine; repeat violation, \$500 fine and 90 day suspension or revocation.

2. Causes monetary or other harm to a customer, or physical harm to any person. First violation, \$500 fine and 90 day suspension; repeat violation, \$500 fine and revocation.

(m) Operating a septage disposal service without a valid department operating permit. First violation, \$500 fine; repeat violation, revocation.

(n) Failure to properly treat or properly dispose of septage or food service sludge. First violation, \$500 fine per violation of Rule 64E-6.010, F.A.C.; repeat violation, revocation.

(o) Failure to maintain completed records of septage treatment and disposal activities. First violation, \$250 fine; repeat violation, \$500 fine and 90 day suspension or revocation.

(p) Installation, modification, or repair of an onsite sewage treatment and disposal system in violation of the standards of Section 381.0065 or 381.00655, F.S., or Chapter 64E-6, F.A.C. First violation, \$500 per specific standard violated; repeat violation, 90 day suspension or revocation.

(q) Creation or maintenance of a sanitary nuisance as defined by Section 386.041, F.S. First violation, \$500 fine, repeat violation, 90 day suspension or revocation.

(r) Falsifying an inspection report or covering a system in violation of the standards of Rule 64E-6.043, F.A.C. First violation, \$500 fine; repeat violation, 90 day suspension of master septic tank contractor privileges or revocation of registration.

(s) The absence of any violation from this section shall be viewed as an oversight, and shall not be construed as an indication that no penalty is to be assessed.

(2) Circumstances which shall be considered for the purposes of mitigation or aggravation of penalty shall include the following:

(a) Monetary or other damage to the registrant's customer, in any way associated with the violation, which damage the registrant has not relieved, as of the time the penalty is to be assessed.

(b) Actual job-site violations of this rule or conditions exhibiting gross negligence, incompetence or misconduct by the contractor, which have not been corrected as of the time the penalty is being assessed.

(c) The severity of the offense.

(d) The danger to the public.

(e) The number of repetitions of the offense.

(f) The number of complaints filed against the contractor.

(g) The length of time the contractor has practiced and registration category.

(h) The actual damage, physical or otherwise, to the customer.

(i) The effect of the penalty upon the contractor's livelihood.

(j) Any efforts at rehabilitation.

(k) Any other mitigating or aggravating circumstances.

(3) As used in this rule, a repeat violation is any violation on which disciplinary action is being taken where the same licensee had previously had disciplinary action taken against him or received a letter of warning in a prior case. This definition applies regardless of the chronological relationship of the violations and regardless of whether the violations are of the same or different subsections of this rule. The penalty given in the above list for repeat violations is intended to apply only to situations where the repeat violation is of a different subsection of this rule than the first violation. Where the repeat violation is the very same type of violation as the first violation, the penalty set out above will generally be increased over what is shown for repeat violations.

(4) Where several of the above violations shall occur in one or several cases being considered together, the penalties shall normally be cumulative and consecutive.

(5) The provisions of this section shall not be construed so as to prohibit civil action or criminal prosecution as provided in Part III of Chapter 489, F.S., and Section 381.0065, F.S., or for a violation of any provision of Part I of Chapter 386, F.S. No provision of this section shall be construed as to limit the ability of the department to enter into binding stipulation with the accused party per subsection 120.57(4), F.S.

*Specific Authority 154.06(1), 381.0011(4), (13), 381.006, 381.0065(3)(a), 489.553(2), (3), 489.557 FS. Law Implemented 154.01, 381.001, 381.0011(4), 381.0012, 381.006, 381.0061, 381.0065, 381.0067, Part I 386, Part III 489 FS. History—New 3-17-92, Amended 1-3-95, 2-13-97, Formerly 10D-6.0751, Amended 2-3-98.*

#### **64E-6.023 Certification of Partnerships and Corporations.**

(1) Authorization of a corporation is only effective as to that corporation; subsidiaries or parents of authorized corporations must be separately authorized.

(a) Application for a certificate of authorization shall be made to the department on Form DH 4077, Application for Certificate of Authorization, incorporated by reference into this rule, and shall be accompanied by all necessary exhibits and fees. A business that applies for a certificate of authorization after the mid point of the biennial authorization cycle shall pay one-half the fee required in Rule 64E-6.030, F.A.C.

(b) Any certificate of authorization not renewed in a timely manner shall revert to inactive status. Applications for renewal shall be considered timely filed if the application has been post marked prior to the close of business on the date of expiration of the certificate. If that date falls on a weekend or legal holiday, the day of expiration shall be the first working day after the expiration date of the certificate.



(2) A registered contractor may not be the sole qualifying contractor for more than one business required to have a certificate of authorization.

(3) A business organization which loses its qualifying contractor shall have sixty (60) days from the date the qualifier terminated his affiliation within which to obtain another qualifying person. This period shall be extended by the department for a period of 30 days pending the outcome of the examination if the applicant has provided a completed application and all required exhibits and fees. During this period, the business organization may complete any existing contracts or continuing contracts, but may not undertake new contracts.

(4) A business organization shall provide written notification to the department within 30 days of any change in the ownership of the business.

(5) A business organization that changes its name shall apply for a new certificate of authorization within 30 days of the name change.

*Specific Authority 154.06, 381.0011, 381.006, 381.0065, 489.553, 489.557 FS. Law Implemented 154.01, 381.001, 381.0011, 381.0012, 381.0025, 381.006, 381.0061, 381.0065, 381.00655, 381.0066, 381.0067, Part I 386, 489.555 FS. History—New 10-25-88, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.076, Amended 4-21-02.*

## **PART IV PERFORMANCE-BASED TREATMENT SYSTEMS**

### **64E-6.025 Definitions.**

Definitions in Chapter 64E-6, Parts I and II, F.A.C., are also applicable to Chapter 64E-6, Part IV, F.A.C.

(1) Advanced Secondary Treatment Standards: A wastewater system with the following operational criteria:

(a) CBOD<sub>5</sub> and TSS.

1. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 10 mg/l.

2. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 12.5 mg/l.

3. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 15 mg/l.

4. Maximum-permissible concentrations of CBOD<sub>5</sub> or TSS values in any effluent grab sample at any time shall not exceed 20 mg/l.

(b) TN.

1. The arithmetic mean of the TN values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 20 mg/l.

2. The arithmetic mean of the TN values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 25 mg/l.

3. The arithmetic mean of the TN values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 30 mg/l.

4. Maximum-permissible concentrations of TN values in any effluent grab sample at any time shall not exceed 40 mg/l.

(c) TP.

1. The arithmetic mean of the TP values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 10 mg/l.

2. The arithmetic mean of the TP values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 12.5 mg/l.

3. The arithmetic mean of the TP values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 15 mg/l.

4. Maximum-permissible concentrations of TP values in any effluent grab sample at any time shall not exceed 20 mg/l.

(d) Fecal coliform – system operation shall result in not more than 200 fecal coliform colonies per 100 ml of effluent sample. Where chlorine is used for disinfection, the design shall include provisions for rapid and uniform mixing and a total chlorine residual of at least 0.5 mg/l shall be maintained after at least 15 minutes contact time at the peak hourly flow. To determine compliance of a system, the following operational criteria (using either MF or MPN methods) shall be applicable.

1. The arithmetic mean of the fecal coliform colonies collected during the annual period shall not exceed 200 per 100 ml of effluent.

2. The median value of the fecal coliform colonies for a minimum number of 10 samples of effluent, each collected on a separate day during a period of 30 days (monthly) shall not exceed 200 per 100 ml of sample.

3. No more than 10% of the samples collected during the period of 30 consecutive days shall exceed 400 fecal coliform colonies per 100 ml of sample.

4. Any one sample shall not exceed 800 fecal coliform colonies per 100 ml of sample.

(2) Advanced Wastewater Treatment Standards: A wastewater system with the following operational criteria:

(a) CBOD<sub>5</sub> and TSS.

1. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 5 mg/l.

2. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 6.25 mg/l.

3. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 7.5 mg/l.

4. Maximum-permissible concentrations of CBOD<sub>5</sub> or TSS values in any effluent grab sample at any time shall not exceed 10 mg/l.

(b) TN.

1. The arithmetic mean of the TN values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 3 mg/l.

2. The arithmetic mean of the TN values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 3.75 mg/l.

3. The arithmetic mean of the TN values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 4.5 mg/l.

4. Maximum-permissible concentrations of TN values in any effluent grab sample at any time shall not exceed 6 mg/l.

(c) TP.

1. The arithmetic mean of the TP values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 1 mg/l.

2. The arithmetic mean of the TP values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 1.25 mg/l.

3. The arithmetic mean of the TP values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 1.5 mg/l.

4. Maximum-permissible concentrations of TP values in any effluent grab sample at any time shall not exceed 2.0 mg/l.

(d) Fecal coliform – system operation shall result in an effluent in which fecal coliform colonies (per 100 ml of sample) are below detectable limits. Where chlorine is used for disinfection, the design shall include provisions for rapid and uniform mixing; and the total chlorine residual of at least 1.0 mg/l shall be maintained at all times. The minimum acceptable contact time shall be 15 minutes at the peak hourly flow. To determine compliance of a system, the following operational criteria (using either MF or MPN methods) shall be applicable.

1. Fecal coliform shall be below the detection limits for 75% of the samples collected over a 30 day period.

2. Any one sample shall not exceed 25 fecal coliform colonies per 100 ml of sample.

3. Any one sample shall not exceed 5.0 mg/l of TSS at a point before application of the disinfectant.

(3) Baseline system standards – A wastewater system with the following operational criteria:

(a) Effluent concentrations from the treatment tank:

1. CBOD<sub>5</sub> – <240 mg/l.

2. TSS – <176 mg/l.

3. TN – <45 mg/l.

4. TP – <10 mg/l.

(b) Percolate concentrations from the baseline system prior to discharge to groundwater:

1. CBOD<sub>5</sub> – <5 mg/l.

2. TSS – <5 mg/l.

3. TN – <25 mg/l.

4. TP – <5 mg/l.

(4) Bottom infiltrative surface – the vertical projection of the bottom surface of the drainfield that is no lower in elevation than 30 inches below grade.

(5) Composite sample – means a combination of individual samples of wastewater or effluent taken at selected intervals, generally hourly or less for some specified period, to minimize the effect of the variability of the individual sample.

(6) Grab sample – a sample which is taken from a wastestream without regard to the flow in the wastestream and over a period of time not to exceed fifteen minutes.

(7) Effective drainfield depth – the vertical distance from the bottom of the drainfield to the invert of the distribution pipe.

(8) Florida Keys nutrient reduction treatment – a treatment which will provide a recovered water product that contains not more, on a permitted annual average basis, than the following concentrations from a sampling point located following the final design treatment step of the onsite sewage treatment and disposal system:

- |   |         |
|---|---------|
| 1. Biochemical Oxygen Demand (CBOD <sub>5</sub> ) | 10 mg/l |
| 2. Suspended Solids                               | 10 mg/l |
| 3. Total Nitrogen, expressed as N                 | 10 mg/l |
| 4. Total Phosphorus, expressed as P               | 1 mg/l  |

(9) Innovative System – as defined by Section 381.0065(2)(g), F.S.

(10) Performance-based treatment system – a specialized onsite sewage treatment and disposal system designed by a professional engineer with a background in wastewater engineering, registered in the state of Florida, using appropriate application of sound engineering principles to achieve specified levels of CBOD<sub>5</sub> (carbonaceous biochemical oxygen demand), TSS (total suspended solids), TN (total nitrogen), TP (total phosphorus), and fecal coliform found in domestic sewage waste, to a specific and measurable established performance standard. This term also includes innovative systems.

(11) Performance System Maintenance Entity – any person or business entity which has been issued a written permit by the county health department and has been authorized by the design engineer or manufacturer of all treatment components used in the performance-based treatment system and provides operation and maintenance services associated with performance-based treatment system.

(12) Secondary Treatment Standards: A wastewater system with the following operational criteria:

(a) CBOD<sub>5</sub> and TSS.

1. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 20 mg/l.

2. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 30 consecutive days (monthly) shall not exceed 30 mg/l.

3. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 45 mg/l.

4. Maximum-permissible concentrations of CBOD<sub>5</sub> or TSS values in any effluent grab sample at any time shall not exceed 60 mg/l.

(b) Fecal coliform – system operation shall result in not more than 200 fecal coliform colonies per 100 ml of effluent sample. Where chlorine is used for disinfection, the design shall include provisions for rapid and uniform mixing and a total chlorine residual of at least 0.5 mg/l shall be maintained after at least 15 minutes contact time at the peak hourly flow. To determine compliance of a system, the following operational criteria (using either MF or equivalent MPN methods) are applicable.

1. The arithmetic mean of the fecal coliform colonies collected during the annual period shall not exceed 200 per 100 ml of effluent.

2. The geometric mean of the fecal coliform colonies for a minimum number of 10 samples of effluent, each collected on a separate day, shall not exceed 200 per 100 ml of sample.

3. No more than 10% of the samples collected during the period of 30 consecutive days shall exceed 400 fecal coliform colonies per 100 ml of sample.

4. Any one sample shall not exceed 800 fecal coliform colonies per 100 ml of sample.

(13) Sidewall infiltrative surfaces – the horizontal projection of the drainfield measured from the invert of the drainfield distribution pipe to the bottom infiltrative surface, or to 30 inches below finished grade, whichever is less.

(14) Total drainfield depth – the vertical distance from the bottom of the drainfield to the top of the drainfield

(15) Wastewater strength – the sum of the CBOD<sub>5</sub> and TSS concentrations in the effluent.

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, 386.041, 489.553 FS. History—New 2-3-98, Amended 3-22-00, 6-18-03.*

#### **64E-6.026 Applications for Innovative System Permits and System Construction Permits.**

(1) Applications for innovative system permits – Applications for innovative system permits shall be made using form DH 3143 herein incorporated by reference. The application and all supporting information shall be signed, dated and sealed by an engineer, registered in the State of Florida. Except as provided for in subsection 64E-6.028(3), F.A.C., alternative drainfield materials and designs shall not be approved which would result in a reduction in drainfield size using the mineral aggregate drainfield system as described in Rule 64E-6.014, F.A.C., and the total surface area of soil at the bottom of the drainfield as the criteria for drainfield sizing comparisons. Applications shall include:

(a) A monitoring protocol designed to validate that the system will perform to the engineer's design specifications.

(b) Compelling evidence that the system will function properly and reliably to meet the requirements of this chapter and Section 381.0065, F.S. Such compelling evidence shall include one or more of the following from a third-party testing organization approved through the NSF Environmental Technology Verification Program:

1. Side stream testing, where effluent is discharged into a system regulated pursuant to Chapter 403, F.S.

2. Testing of systems in other states with similar soils and climates.

### 3. Laboratory testing.

(2) Applications for system construction permits – All information required in part I for an application for system construction permit shall be included as part of the application for a performance-based treatment system. Two copies of all information shall be dated, signed and sealed by the registered engineer who designed the system, and provided to the department. Upon any change to the design, two copies of any revisions shall be provided to the department. Additional information shall include the following:

(a) System design criteria, to include performance levels for the performance-based system and monitoring requirements and monitoring locations, and method of monitoring flow through the system. Performance levels shall be indicated in the design as secondary treatment standards, advanced secondary treatment standards, or advanced wastewater treatment standards, or baseline treatment.

(b) System design calculations for the performance-based system.

(c) System design plans and drawings for the performance-based treatment system, to include all components and method of installation to be used in construction. A detailed installation drawing shall be included. The site plan required in paragraph 64E-6.004(3)(a), F.A.C., shall be drawn to scale.

(d) Where soil is used as part of the treatment system, a site plan showing the direction of groundwater movement, the locations of all effluent plume monitoring wells or devices, and the anticipated extent of the effluent plume.

(e) Contingency plan for effluent to be collected and disposed of, or treated, in the event of system failure.

(f) Certification of design. The design engineer shall certify the design of the system to meet all applicable performance standards. The certification shall be as follows: "I certify that the engineering features of this performance-based treatment system have been designed or specified by me and conform to engineering principles applicable to such projects. In my professional judgment, this system, when properly constructed, operated and maintained, will achieve the established performance standard and comply with all applicable statutes of the State of Florida and rules of the Department".

(g) An operation and maintenance manual shall be prepared by the design engineer and provided as part of the original design.

(h) All changes to the engineering specifications shall be approved and certified by the design engineer. A copy of any changes shall be provided to the county health department for review for compliance with performance-based system standards and approval or disapproval.

(i) All changes to the operation and maintenance manual shall be approved and certified by the design engineer. A copy of any changes shall be provided to the county health department for review and approval or disapproval.

(j) A cover letter addressed to the county health department stating that the applicant wishes to apply for a performance-based treatment system.

(3) All materials incorporated herein may be obtained by contacting the department.

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, Part I 386, 489.553 FS. History—New 2-3-98, Amended 6-18-03.*

### **64E-6.027 Permits.**

(1) Innovative System Permit - An application for system construction permit for an innovative system cannot be reviewed until the innovative system permit has been approved specifying the number of systems and time limits. The department's decision to grant or deny the innovative system permit shall be based on the presence or absence of compelling evidence that the innovative systems will function properly and reliably to meet the requirements of this chapter and Section 381.0065, FS.

(2) System Construction Permit – No portion of a performance-based treatment system shall be installed, repaired, altered, modified, abandoned or replaced until an "Onsite Sewage Treatment and Disposal System Construction Permit" has been issued on Form DH 4016. If building construction has commenced, the system construction permit shall be valid for an additional 90 days beyond the eighteen month expiration date. A fee shall be charged for a repair permit issued within 12 months from the date of final authorization of the performance-based treatment system. If a construction or repair permit for a performance-based treatment system is transferred to another person, the date of the construction or repair permit shall not be amended, but shall run from the date of original issuance prior to the transfer. Servicing or replacing with like kind mechanical or electrical parts of a performance-based treatment system; pumping of septage from a system; or making minor structural corrections to a tank, or distribution box, does not constitute a repair, however, all services must be performed by the performance system maintenance entity. Any proposed change from the original design, including increasing or decreasing changes in flow rate, shall require that the system be re-engineered to achieve the desired performance standard under the altered conditions.

(3) Within 15 working days after the department receives a completed application for a performance-based treatment system, the county health department must either issue a permit for the system or shall notify the applicant that the system does not comply with the performance criteria, and refer the application to the Bureau of Onsite Sewage Programs, who shall review the application for a determination whether the system should be approved, disapproved, or approved with modifications. The determination of the engineer for the Bureau of Onsite Sewage Programs shall prevail over the action of the local county health department. All applications for a construction permit for an innovative system shall be reviewed for completeness by the county health department and referred to the Bureau of Onsite Sewage Programs for review and approval, disapproval or approval with modifications.

(4) The applicant shall be notified of the department's determination. If the permit is denied, the applicant shall be notified of their right to pursue a variance or seek review under the provisions of Chapter 120, F.S.

(5) System inspection – Before covering with earth and before placing the performance-based treatment system into service, a person installing or constructing any portion of the performance-based treatment system shall notify the county health department of the completion of the construction activities and shall have the system inspected by the department for compliance with the requirements of this chapter.

(a) Prior to or concurrent with a final installation inspection by the department, the professional engineer who designed the system, or the design engineer's designee, shall observe the entire installation and shall certify in writing that the installed system complies with the approved design and installation requirements. This certification shall read as follows: "I certify that the engineering features of this performance-based treatment system have been examined by me and found to substantially comply with all specifications contained in the engineering design that was the basis for issuance of the construction permit. I certify that the operation and maintenance manual for this performance-based treatment system has been prepared or examined by me or by an individual(s) under my direct supervision and that there is reasonable assurance, in my professional judgment, that the system, when properly operated and maintained in accordance with this manual, will achieve the established performance standard and comply with all applicable statutory requirements and rules of the department".

(b) If the system construction is approved after an inspection by the county health department, the department shall issue a "Construction Approval" notice to the installer. A drawing to depict the installation as built shall be provided to the department prior to final system approval.

(c) If the system is found to not comply with the construction permit during the construction inspection on any type of system installation, the county health department shall notify the engineer. The installer shall make all required corrections and notify the county health department of the completion of the work prior to reinspection of the system. A reinspection fee shall be charged for each additional inspection leading up to construction approval.

(d) Final installation approval shall not be granted until the county health department has confirmed that all requirements of this chapter, including building construction and lot grading are in compliance with plans and specifications provided with the permit application, the system maintenance entity has been identified to the county health department, and the property owner has executed and recorded in the public property records at the county courthouse, a written notice that informs all subsequent property owners of the use of the performance-based treatment system, and of the requirement for the system to be maintained, in perpetuity, in compliance with all lawful requirements. "Approved" installation does not imply that a system will perform satisfactorily for a specific period of time.

(6) Operating permits – No residence or establishment served by a performance-based treatment system shall be occupied until Form DH 4081, 10/96, "Application for Onsite Sewage Treatment and Disposal System Operating Permit" has been received and approved by the department. Form DH 4081, is hereby incorporated by reference, and is available from the department. Where a performance-based treatment system is used, only one operating permit shall be required for the system.

(a) Maintenance entities contracting to service performance-based treatment systems shall obtain a biennial operating permit from the county health department for the system. Persons operating a performance-based treatment system shall permit department personnel right of entry to the property during normal working hours to allow for effluent sampling or evaluating the general state of repair or function of the system.

(b) The permit shall designate the performance system maintenance entity responsible for the operation and maintenance of the system. At a minimum, the performance system maintenance entity responsible for maintenance of the system shall test, or cause to be tested, the performance-based treatment system in accordance with Part IV of this rule. The frequency of testing shall be specified on the annual operating permit. The operating permit shall also specify the observation interval to assess the operation of the system without taking monitoring samples.

(c) Systems and the structures which they serve shall be inspected by the department at least once annually during the term of the biennial operating permit to determine compliance with the terms of the operating permit.

(d) A copy of the signed maintenance agreement between the property owner or property lessee and an engineer-designed performance-based system maintenance entity shall be provided to the county health department by the maintenance entity. The maintenance agreement shall:

1. Initially be for a period of at least 2 years and subsequent maintenance agreement renewals shall be for at least 1 year periods for the life of the system.

2. Provide that a maintenance entity which desires to discontinue the provision of maintenance services, notify in writing, the property owners and lessees and the county health department at least 60 days prior to discontinuance of service.

3. Provide that, if a private maintenance entity discontinues business, property owners who have previously contracted with the discontinued maintenance service shall, within 60 days of the service termination date, contract with an approved maintenance service and provide the county health department a copy of the newly signed maintenance agreement.

4. Provide that each performance-based treatment system is inspected by an engineer-designed performance-based system maintenance entity at least two times each year. The maintenance entity shall furnish to the county health department a listing of all performance based treatment systems inspected or serviced during the respective reporting period. As a minimum, reports shall indicate the system owner or building lessee, the street address of the system, the date of system inspection or service and a statement as to the maintenance or service performed. The maintenance entity shall also include a list of the owners who have refused to renew their maintenance agreement.

(e) No performance-based treatment system shall be serviced or repaired by a person or entity engaged in a performance-based treatment system maintenance service until the service entity has obtained an annual written permit issued on Form DH 4013 from the DOH county health department in the county where the service company is located. Each service entity shall employ at least one plumbing contractor licensed under Section 489.105(3)(m), F.S., septic tank contractor registered under Part III of Chapter 489, F.S., or a state-licensed wastewater treatment plant operator, who is responsible for maintenance and repair of all systems under contract. Application for a Maintenance Service Permit, Form DH 4066, shall be made to the DOH county health department and shall contain the following information:

1. Evidence that the maintenance entity possesses a manufacturer's maintenance and operations manual and has received training from the manufacturer in proper installation and service of the performance-based treatment system components and has received written approval from the components' manufacturers to perform service on their components. The manual shall contain detailed instructions on proper operation and maintenance procedures, a replacement parts list for all components being installed and maintained, a statement giving the capabilities of each system, instructions on how to detect a malfunctioning system and what to expect from a properly functioning system.

2. A signed statement from the applicant attesting that the applicant has adequate staff, possesses proper equipment and has sufficient spare structural and mechanical parts and components to perform routine system monitoring and servicing and is able to make a service response within 36 hours after notification of the need for emergency repairs.

3. Payment of \$25.00 to the DOH county health department per annum for the performance-based treatment system maintenance service permit.

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, Part I 386, 489.553 FS. History—New 2-3-98, Amended 4-21-02, 6-18-03.*

#### **64E-6.028 Location and Installation.**

Performance-based treatment systems shall be installed in compliance with the following.

(1) Systems shall receive the following setbacks to the listed feature. If no setback is specified for a specific feature, Part I requirements shall apply unless the performance-based treatment system is located in the Florida Keys. If located in the Florida Keys, Part II shall be used for all setbacks.

(a) Secondary Treatment Standards. The system shall be a minimum of 65 feet from any surface water bodies or wet retention or detention area if the lot was platted on or after January 1, 1972.

(b) Advanced Secondary Treatment Standards.

1. Surface water bodies: The system shall be a minimum of 50 feet from any surface water bodies or wet retention or detention area if the lot was platted on or after January 1, 1972.

2. Groundwater interceptor drain: 10 feet.

3. Dry retention area and swales: 10 feet.

4. Where a performance-based treatment system is placed adjacent to Class II waters, setbacks that are applied to secondary treatment levels shall be applicable. Alternatively, where the fecal coliform complies with the following levels, reduced setbacks in subparagraphs 64E-6.028(1)(b)1. through 3., F.A.C., above shall be allowed.

a. System operation shall result in not more than 14 fecal coliform colonies per 100 ml of effluent sample. Where chlorine is used for disinfection, the design shall include provisions for rapid and uniform mixing and a total chlorine residual of at least 1.0 mg/l shall be maintained after at least 15 minutes contact time at the peak hourly flow. To determine compliance of a system, the following operational criteria (using either MF or MPN methods) are applicable.

b. The arithmetic mean of the fecal coliform colonies collected during the annual period shall not exceed 14 per 100 ml of effluent.

c. The median value of the fecal coliform colonies for a minimum number of 10 samples of effluent, each collected on a separate day during a period of 30 days (monthly) shall not exceed 14 per 100 ml of sample.

d. No more than 10% of the samples collected during the period of 30 consecutive days shall exceed 43 fecal coliform colonies per 100 ml of sample.

e. Any one sample shall not exceed 86 fecal coliform colonies per 100 ml of sample.

(c) Advanced Wastewater Treatment Standards.

1. Surface water bodies: The drainfield shall be a minimum of 25 feet from any surface water bodies or wet retention or detention area. The treatment unit or process containers shall be a minimum of 50 feet from any surface water bodies or wet retention or detention area.

2. Groundwater interceptor drain: 10 feet.

3. Dry retention area and swales: 10 feet.

4. Seasonal high water table to bottom of drainfield: 12 inches.

(2) Systems designed to meet secondary treatment standards shall be allowed to exceed their authorized lot sewage flow allowances by up to 25%. Systems designed to meet advanced secondary treatment standards shall be allowed to exceed their authorized lot sewage flow allowances by up to 50%. Systems designed to meet advanced wastewater treatment standards shall be allowed to exceed their authorized lot sewage flow allowance by up to 100%. For example, if authorized lot flow is 200 gallons per day, a total of 300 gallons per day lot flow will be allowed for systems designed to meet advanced secondary treatment standards.

(3) Drainfield designs: The following alterations to drainfield requirements shall be allowed for pressure dosed systems only.

(a) Long Term Acceptance Rate, also known as LTAR – LTAR's for sidewall infiltrative surfaces shall not exceed 1.25 times the bottom infiltrative surface LTAR for the same soil classification. Where the soil classification varies within the drainfield soil profile, the sidewall LTAR shall be adjusted accordingly. Sidewall infiltrative surfaces may be utilized only when a system is dosed a maximum of two times per day and the trench width is no greater than 18 inches.

(b) For septic tank effluent, maximum LTAR values shall not exceed the equivalent to the baseline standard for the soil classification in question. (see Table IX)

TABLE IX  
Bottom/Sidewall Infiltrative Surface Maximum Equivalent LTAR's

Side LTAR: Bottom LTAR ratio =	1.25	1.25	1.25	1.25
Current trench bottom LTAR (gal/sq. ft/day) =	1.20	0.90	0.65	0.35
Trench width (inches) =	36.00	36.00	36.00	36.00
Effective sidewall height (inches) =	8.00	8.00	8.00	8.00
sidewall height (inches) =	12.00	12.00	12.00	12.00
Revised bottom LTAR (gal/sq. ft/day) =	0.77	0.58	0.42	0.23
New sidewall LTAR (gal/sq. ft/day) =	0.96	0.72	0.52	0.28

Footnotes to Table IX.

Footnote 1. Designs that utilize onsite open trench horizontal and vertical hydraulic conductivity testing to adjust the bottom and sidewall LTAR's shall be acceptable. The LTAR can be modified; however, the side LTAR: bottom LTAR ratio cannot exceed 1.25 for like soils.

Footnote 2. Designs that utilize established modeling techniques to determine the maximum effective capacity (design daily flow) of a designed drainfield system shall be acceptable.

Footnote 3. The horizontal and vertical projections of inclined surfaces cannot be considered for both sidewall and bottom credit in the same cross section. The designer must select one or the other.

Footnote 4. The current trench bottom LTAR's are from Part I, Table III, and are referred to as maximum sewage loading rates in Table III.

Footnote 5. Absorption beds shall be allowed providing the LTAR's are adjusted accordingly.

(c) Designs based on groundwater monitoring shall be site specific with auger borings in accordance with paragraph 64E-6.004(3)(c), F.A.C., not to exceed 10 foot increments along the drainfields.

(d) Infiltrative surfaces greater than 30 inches below finished grade shall be considered ineffective in the aerobic treatment of wastewater.

(e) Sidewall-to-sidewall separation between adjacent trenches shall be equal to or greater than 1.0 times the width for slightly limited soils and 2.0 times the width for moderately limited soils. A minimum separation not less than six inches shall be maintained between trenches.

(f) Hydraulic surge storage – the design shall protect the residence from backflow into the treatment tank.

(g) For gravity and pumped systems, the following shall apply:

1. For aggregate systems, the porosity shall be calculated at 33%.
2. The effective storage volume of the drainfield shall be equal to or greater than 1.5 times the design daily flow.
3. The total storage volume of the drainfield shall be equal to or greater than 1.8 times the design daily flow.

(h) For any pumped systems, the following shall apply:

1. The pump chamber shall be capable of providing the reserve required to make up the difference between the actual drainfield effective and total storage volumes provided and the effective and total storage volumes required, if applicable. In the event of pump failure, the pump chamber shall have a reserve capacity of at least 50% of the design daily flow.

2. Pumps shall be designed in accordance with the May, 1985 Sump and Sewage Pump Manufacturers Association standards for the purpose intended, hereby incorporated by reference.

(i) Designs that utilize sound engineering principles and groundwater movement modeling to determine appropriate soil replacement and digout criteria for the disbursement of the design daily flow shall be considered. Groundwater mounding shall not be allowed to be within 18 inches of the infiltrative surface under a hydraulic stress equal to 1.5 times the design daily flow.

(j) Infiltrative surface area reductions shall be allowed for systems designed to reduce the wastewater strength of the effluent. The baseline system shall be used for comparison with a typical average CBOD<sub>5</sub> of 140 mg/l and TSS of 105 mg/l. The maximum reduction in infiltrative surface area shall not exceed the following standards.

1. Secondary treatment standards: 25% reduction.

2. Advanced secondary treatment standards: 30%.
3. Advanced wastewater treatment standards: 40%.

Reductions shall not be permitted if all other design requirements are not met. For example, the hydraulic surge storage requirements in paragraphs 64E-6.028(3)(f)-(h), F.A.C., above must be sufficient in the drainfield size specified.

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, 386.041, 489.553 FS. History—New 2-3-98, Amended 3-22-00.*

#### **64E-6.029 Monitoring.**

Monitoring requirements – All performance-based treatment systems shall be monitored in compliance with the requirements in this section. If soil is considered part of the treatment system in any performance-based standard, monitoring points in the effluent plume within the boundaries of the property must be in compliance with the minimum criteria for total nitrogen, total phosphorous and fecal coliform.

(1) Advanced wastewater treatment systems.

(a) A maintenance report shall be kept by the performance system maintenance entity. A copy of all maintenance reports shall be provided to the county health department on monthly intervals, to begin one month after system operation has started. After the first six reports are provided to the county health department, reports shall be provided once every three months. All reports must be legible. The report shall include the following information:

1. Address of performance-based treatment system.
2. Date and time of inspection.
3. Sample collection time and date, and person who collected sample.
4. Results of all sampling.
5. Volume of effluent treated, to include total monthly and daily average.
6. Maintenance performed.
7. Problems noted with performance-based treatment system and actions taken or proposed to overcome them.

8. During the first six months of system operation, or after the system has failed, systems shall be monitored a minimum of once every two weeks. Monitoring shall include sampling for CBOD<sub>5</sub>, TSS, TN, TP and fecal coliform. Monitoring shall occur at the time the system is expected to be at capacity, or as close to capacity as possible. Re-sampling within 48 hours of receipt of laboratory results shall be allowed on all samples that exceed design parameters in order to evaluate the validity of the original sample results. If the re-sample is in compliance with the appropriate performance-based standard, the original result shall be disregarded. Laboratories must be approved by the department or the Department of Environmental Protection for all analyses performed. All results shall be certified by the laboratory.

a. If any two consecutive samples exceed design treatment standards by more than 100%, the system design and operation shall be inspected by the design engineer for conformance with permitting requirements, and shall be adjusted to bring the effluent quality into compliance with permitting requirements. Monitoring shall be increased to once per week, or more if the design engineer specifies such, until such time the violation is corrected. When two consecutive samples are within 100% of the design parameters, monitoring shall be reduced to once every two weeks. For example, if the design parameter is 10 mg/l CBOD<sub>5</sub>, a reading of 20 mg/l CBOD<sub>5</sub> exceeds the standard by 100%.

b. After a six month period of compliance with all applicable performance standards, sampling shall be performed quarterly.

c. When an applicant installs a system designed to meet advanced wastewater treatment standards, the monitoring frequency shall be reduced by 50% if only one of the following three location and installation requirements is used and the other two remain at the standards required of prescriptive systems. The three requirements are:

- (I) Setbacks required in paragraphs 64E-6.028(1)(a)-(c), F.A.C.
- (II) Seasonal high water table subparagraph 64E-6.028(1)(c)4., F.A.C.
- (III) Authorized lot flow subsection 64E-6.028(2), F.A.C.

(b) When four consecutive once every two week samples from a system are at or below the applicable standard, sampling frequency shall be reduced to quarterly.

(c) When eight consecutive quarterly samples from a system are below the applicable standard, sampling frequency shall be reduced to once every six months.

(d) All reports of operating permit violations shall be reported to the department within five working days.

(e) If the system cannot be brought into compliance with design parameters, the contingency plan must be enforced.

(f) All failures of the performance-based treatment system shall be reported to the county health department by the maintenance entity within one working day from discovery of failure. The testing laboratory shall mail copies of all results to the county health department.

(g) Testing performed during periods of system non-use that exceed one week, shall not qualify as legitimate samples for purposes of compliance with any provisions of this rule.

(2) Secondary treatment systems and advanced secondary treatment systems.



(a) A maintenance report shall be kept by the performance system maintenance entity. A copy of all maintenance reports shall be provided to the county health department on quarterly intervals. All reports must be legible. The report shall include the items required in subparagraphs 64E-6.029(1)(a)1., 2., 5., 6. and 7., F.A.C., in addition to the following information:

1. Ponding depth observed through drainfield observation ports or, when the drainfield design prevents direct measurement of ponding depth, CBOD<sub>5</sub> and TSS results for samples collected at a point prior to the discharge to the drainfield.

2. If system performance is necessitated by setback reductions or lot flow allowances:

a. Sampling results for Fecal Coliform from Secondary Treatment Systems.

b. Sampling results for Nitrogen, Phosphorous and Fecal Coliform from Advanced Secondary Treatment Systems.

c. Collection time and date of all samples.

d. Name of the person who collected samples.

(b) All reports of operating permit violations shall be reported to the department within five working days.

(c) If the system cannot be brought into compliance with design parameters, the contingency plan must be implemented by the system owner.

(d) All failures of the performance-based treatment system shall be reported to the county health department by the maintenance entity within one working day from discovery of failure. The testing laboratory shall mail copies of all results to the county health department.

(3) Florida Keys nutrient reduction treatment systems shall be monitored and sampled in accordance with Part II of this chapter.

(4) All systems with drainfields designed under subsection 64E-6.028(3), F.A.C., shall be monitored via placing a minimum of two observation ports in the drainfield. Monitoring will consist of recording depth of effluent ponding in the drainfield in at least two places on a quarterly basis.

(5) If soil is considered part of the treatment system in any performance-based standard, two monitoring points in the effluent plume within the boundaries of the property must be in compliance with the performance level specified by the design engineer.

(6) Any performance-based treatment system that is out of compliance with the terms of the operating permit shall be re-engineered by an engineer registered in the State of Florida. The system shall be brought into compliance with treatment standards required at the time of system permitting.

(7) Innovative systems shall be monitored in accordance with the design engineer's protocol submitted with the application as approved by the department. All monitoring and sampling shall be performed at the expense of the applicant. At a minimum, the monitoring protocol shall:

(a) Determine if baseline standards are being met.

(b) Address the monitoring for any contaminant being reduced.

(c) Address the monitoring of any site condition being modified.

(8) The following shall be considered as violations of the performance-based treatment system operating permit:

(a) The failure to maintain equipment in a condition which will enable the intended function.

(b) The submission, by the owner, manager or maintenance entity of a performance-based treatment system, or agent or employee thereof, of misleading, false, or inaccurate information or operational reports to the department, either knowingly or through neglect.

(c) The submission of fraudulent data produced with an intention to deceive including the following:

1. Apparent measurement results for which no measurement or test results were actually made as determined by the absence of the supporting records which are usually made.

2. Measurements or test results obtained by deliberately and knowingly making measurements or collecting samples at places and times other than as specified in this chapter.

3. Test results obtained through use of unapproved and erroneous sampling, preservation, storage, or analysis procedures.

4. Computational errors, misunderstandings of required procedures and other common errors are excluded.

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, 386.041, 489.553 FS. History—New 2-3-98, Amended 3-22-00, 6-18-03.*

#### **64E-6.0295 Innovative System Reclassification.**

(1) Following the installation and monitoring of the number of systems allowed by the innovative system permit, the applicant may request reclassification of their innovative system by the Bureau of Onsite Sewage Programs. Requests for reclassification as an alternative system component and design shall be made in accordance with subsection 64E-6.009(7), F.A.C. Requests for reclassification as a performance-based treatment system shall include the following:

(a) Results and analysis of monitoring of the systems installed.

(b) Observations of system performance.

(c) Maintenance, repairs or modifications performed on any systems.

(d) Comments from the system operators or users.

(e) Comments from the design engineers who designed the individual system designs.

(f) Comments from the county health departments in the counties where the systems were installed.

(g) Specification of the proposed classification as performance-based.

(h) Rationale for the proposed type of classification desired.

(i) Proposed monitoring protocol.

(j) A sample manual addressing the siting, design, installation, inspection, operation, maintenance and abandonment procedures.

(2) The Bureau of Onsite Sewage Programs shall process the request in accordance with Chapter 120, F.S. The department shall approve the request only if the department is satisfied that the system will reliably perform to the standards desired under normal operating conditions as demonstrated by the information provided.

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0067, 386.041, 489.553 FS. History—New 6-18-03.*

## PART V

### 64E-6.030 Fees.

(1) The following fees are required to accompany applications for site evaluations, construction, modifications to existing systems or repair permits, and other services provided by the department.

(a) Application for permitting of an onsite sewage treatment and disposal system, which includes application and plan review. \$25

(b) Application for permitting of a new performance-based treatment system \$125

(c) Site evaluation for a new system which includes an evaluation of criteria specified in subsection 64E-6.004(3), F.A.C. \$60

(d) Site evaluation for a system repair which includes an evaluation of criteria specified in subsection 64E-6.015(1), F.A.C., or modification of a system. \$40

(e) Site re-evaluation, new or repair, or modification of a system. \$40

(f) Permit for new system, or modification of a system. \$55

(g) New system or modification of a system installation inspection. \$55

The following research fee is to be collected in addition to, and concurrent with the permit for a new system installation fee. \$5

(h) Repair permit issuance, which includes inspection. \$50

(i) Inspection of System Previously in Use, does not include modifications to system. \$50

(j) Reinspection fee per visit for site inspections after system construction approval. \$25

(k) Installation reinspection for non-compliant system per each site visit. \$25

(l) System abandonment permit, includes permit issuance and inspection. \$40

(m) Annual operating permit fee for systems in industrial, manufacturing, and equivalent areas, and for systems receiving commercial sewage waste. \$150

Amendments or changes to the operating permit during the permit period per change or amendment. \$25

(n) Aerobic treatment unit biennial operating permit. \$100

(o) Biennial operating permit fee for performance-based treatment system. A prorated fee is to be charged beginning with second year of operation. \$100

(p) Review of application due to proposed amendments or changes after initial operating permit issuance for a performance-based treatment system. \$75

(q) Tank Manufacturer's Inspection per annum. \$100

(r) Septage Disposal Service permit per annum. \$50

Additional charge per pumpout vehicle. \$25

(s) Portable or Temporary Toilet Service permit per annum. \$50

Additional charge per pumpout vehicle. \$25

(t) Septage stabilization facility inspection fee per annum per facility. \$150

(u) Septage disposal site evaluation fee per annum. \$100

(v) Aerobic treatment unit maintenance entity permit per annum. \$25

(w) Variance Application for a single family residence per each lot or building site. \$150

(x) Variance Application for a multi-family or commercial building per each building site. \$200

(y) Application for innovative product approval. \$500

(2) Except for the time limited research fee which is to be placed in a designated account, all fees collected pursuant to paragraphs 64E-6.030(1)(a) through (v), F.A.C., shall be deposited in an individual county health department trust fund to be used to meet the cost of administering the onsite sewage treatment and disposal program.

(3) The following fees are required to accompany applications for registration of individuals for septic tank contractor or master septic tank contractor or for a certificate of authorization for partnerships and corporations.

- |   |       |
|---|-------|
| (a) Application for registration including examination. | \$75  |
| (b) Initial registration.                               | \$100 |
| (c) Renewal of registration.                            | \$100 |
| (d) Certificate of authorization each two-year period.  | \$250 |

*Specific Authority 381.0011(13), 381.006, 381.0065(3)(a), 381.0066, 489.553(3), 489.557(1) FS. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.0012, 381.0025, 381.006(7), 381.0061, 381.0065, 381.0066, 381.0067, 386.041, 489.553, 489.554, 489.555, 489.557 FS. History—New 2-3-98, Amended 3-22-00, 4-21-02.*

## **CHAPTER 64E-7 FLORIDA KEYS AREA OF CRITICAL STATE CONCERN COORDINATED AGENCY REVIEW**

64E-7.001	General.
64E-7.002	Purpose.
64E-7.003	Definitions.
64E-7.004	Review Coordination.
64E-7.005	Review Results.
64E-7.006	Intergovernmental Agreements.

### **64E-7.001 General.**

This rule describes the roles, duties and procedures to be followed by the Department of Health in complying with requirements of the Florida Keys Area of Critical State Concern Coordinated Agency Review process.

*Specific Authority 380.051 FS. Law Implemented 380.051 FS. History--New 1-10-88, Formerly 10D-98.001.*

### **64E-7.002 Purpose.**

(1) The rules in this chapter establish a coordinated review process that provides a permit applicant the opportunity to simultaneously submit a permit application to the department and other state and regional agencies at the same time the applicant submits an application for local development approval to Monroe County, the City of Layton, or the City of Key Colony Beach. The process applies to proposed developments in the Florida Keys Area of Critical State Concern.

(2) The review process coordinates review times and provides for at least one joint meeting involving the applicant and a representative of the department, other permitting agencies and local government so that the parties can resolve potential disputes and make revisions, if necessary, as quickly and inexpensively as possible.

(3) The process shall conclude with department certification, which shall state whether the proposed location, densities, intensity of use, character, major design features, public health and environmental impacts of the proposed development comply with statutes and rules enforced by the department. Certification shall be issued or denied within 60 days of receipt by the department of a complete application and receipt of written notice from the permit coordinator. The roles of the permit coordinator for coordinated agency review are defined in Rule 9J-19.003, F.A.C.

(4) Certification does not replace any required department permit. Certification creates a rebuttable presumption that a permit will be issued by the department. Upon reviewing a permit application the department may deviate from the certification if new information received or developed by the department within the permit review period of Section 120.60(2), F.S., dictates such action.

(5) Where processing of an application for a permit can be accomplished within the time frame of coordinated review, the department shall issue the permit in lieu of certification.

(6) Government entities shall be treated as developers under this rule and are entitled to utilize the coordinated agency review process for government projects.

*Specific Authority 380.051 FS. Law Implemented 380.051 FS. History--New 1-10-88, Formerly 10D-98.002.*

### **64E-7.003 Definitions.**

(1) Coordinated Agency Review – means review, by the Department of Environmental Protection, the Department of Health and other state and regional agencies that require permits in the Florida Keys Area of Critical State Concern, when review includes the proposed location, densities, intensity of use, character, major design features and environmental impacts of a proposed development for the purpose of considering whether these aspects of the proposed development comply with the certifying agency's statutes and rules.

(2) Department – means the Department of Health including employees and agents of the Monroe County Health Department.

(3) Limited Waiver – means the temporary giving up by a permit applicant of the right to receive permit review by the department within the 90-day time period specified in Section 120.60, F.S., and the 60-day time period specified in Section 380.051, F.S. Such waiver is intended to allow tolling of the permit processing time for the department where a local government or any agency timely requests additional technical or legal information pertinent to the application. An applicant agreeing to a limited waiver acknowledges and accepts that the required review periods under Section 120.60, F.S., and Section 380.051, F.S., commence when the department receives written notification from the permit coordinator stating that all governments and agencies consider the application to be complete.

(4) Permit Coordinator – means the administrator of coordinated agency review and the primary contact person for an applicant who elects to utilize the coordinated agency review process.

(5) Substantive Review – means department review of an application under the time limitations specified in Sections 120.60 and 380.051, F.S.

*Specific Authority 380.051 FS. Law Implemented 380.051 FS. History--New 1-10-88, Formerly 10D-98.003.*

#### **64E-7.004 Review Coordination.**

Department and Monroe County Health Department activities related to the coordinated agency review process shall include:

(1) Providing, within 14 days from the effective date of this rule, a list of permitting activities conducted by the department in the Florida Keys Area of Critical State Concern and providing department permit and application requirements to the permit coordinator.

(2) Participation with all other agencies involved with interagency review and coordination in the development and adoption, by rule, of a standardized coordination review application form.

(3) Providing a representative at scheduled meetings with the Monroe County Development Review Committee to participate in comprehensive review of proposed development plans.

(4) Review, upon receipt of a permit application from the permit coordinator, each application according to one of the following:

(a) According to time frames established by Section 120.60, F.S., and Section 380.051, F.S., where a limited waiver of the time frames specified in the respective statutes has not been agreed to by the applicant.

(b) When an applicant has agreed to a limited waiver and submitted such waiver along with the application, the Monroe County Health Department shall advise the permit coordinator when the application is complete and ready for substantive agency review.

(5) Commencing review when the permit coordinator advises the Monroe County Health Department in writing to initiate substantive review of an application. The review shall be accomplished within 60 days of the date of receipt of substantive review notification. When a permit is being sought, permit processing shall be accomplished within the time frame specified by Section 120.60(2), F.S.

(6) Providing written notification to the permit coordinator if the applicant changes the proposed location, density, intensity of use, character or major design features of the project while substantive review is underway.

*Specific Authority 380.051 FS. Law Implemented 380.051 FS. History—New 1-10-88, Formerly 10D-98.004.*

#### **64E-7.005 Review Results.**

(1) At the conclusion of substantive review the Monroe County Health Department shall give notice of its certification pursuant to Section 120.60(3), F.S., and shall forward a copy of the notice to the permit coordinator and all other agencies included in the coordinated agency review process. The Monroe County Health Department shall take any one of the following actions:

(a) Grant certification if the Monroe County Health Department finds that the application is consistent with state law and department rules.

(b) Grant conditional certification which contains requirements necessary for the development to comply with state law and department rules.

(c) Deny the certification and state the reasons for denial.

(2) The Monroe County Health Department shall grant a permit in lieu of coordinated agency review certification if processing of a completed permit application can be accomplished within the 60-day coordinated review time frame and the development complies with state law and department rules.

(3) A permit or certification shall be valid for the time frame as specified for a permit in the applicable department rule covering the particular type of development, and a permit or certification shall be renewed or reissued as provided for a permit by the applicable department rule.

*Specific Authority 380.051 FS. Law Implemented 380.051 FS. History—New 1-10-88, Formerly 10D-98.005.*

#### **64E-7.006 Intergovernmental Agreements.**

The Monroe County Health Department shall enter into an intergovernmental agreement with Monroe County and with municipalities in the area of critical state concern to allow a Monroe County Health Department representative to participate in the local government's development review committee.

*Specific Authority 380.051 FS. Law Implemented 380.051 FS. History—New 1-10-88, Formerly 10D-98.006.*